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disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in § 268.5(h)(2).

(f) The requirements of paragraphs (a), (b), (c), and (d) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in Subpart D of this part;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under § 268.44;

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to these wastes covered by the extension.

(g) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Subpart D levels, the waste is prohibited from land disposal, and all requirements of this part 268 are applicable, except as otherwise specified.

[61 FR 15663, Apr. 8, 1996, as amended at 61 FR 33683, June 28, 1996; 62 FR 1997, Jan. 14, 1997; 62 FR 32979, June 17, 1997; 62 FR 37699, July 14, 1997; 63 FR 51264, Sept. 24, 1998]

Subpart D—Treatment Standards

§ 268.40 Applicability of treatment standards.

(a) A prohibited waste identified in the table “Treatment Standards for Hazardous Wastes” may be land disposed only if it meets the requirements found in the table. For each waste, the table identifies one of three types of treatment standard requirements:

(1) All hazardous constituents in the waste or in the treatment residue must be at or below the values found in the

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table for that waste (“total waste standards”); or

(2) The hazardous constituents in the extract of the waste or in the extract of the treatment residue must be at or below the values found in the table (“waste extract standards”); or

(3) The waste must be treated using the technology specified in the table (“technology standard”), which are described in detail in § 268.42, Table 1—Technology Codes and Description of Technology-Based Standards.

(b) For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the test Method 1311, the Toxicity Characteristic Leaching Procedure found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in § 260.11, must be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: Method 1311, or Method 1310B, the Extraction Procedure Toxicity Test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the Administrator under the procedures set forth in § 268.42(b).

(c) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

(d) Notwithstanding the prohibitions specified in paragraph (a) of this section, treatment and disposal facilities may demonstrate (and certify pursuant to 40 CFR 268.7(b)(5)) compliance with the treatment standards for organic constituents specified by a footnote in the table “Treatment Standards for Hazardous Wastes” in this section, provided the following conditions are satisfied:

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(1) The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;

(2) The treatment or disposal facility has used the methods referenced in paragraph (d)(1) of this section to treat the organic constituents; and

(3) The treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in this section by an order of magnitude.

(e) For characteristic wastes (D001–D043) that are subject to treatment standards in the following table “Treatment Standards for Hazardous Wastes,” and are not managed in a wastewater treatment system that is regulated under the Clean Water Act (CWA), that is CWA-equivalent, or that is injected into a Class I nonhazardous deep injection well, all underlying hazardous constituents (as defined in § 268.2(i)) must meet Universal Treatment Standards, found in § 268.48, Table Universal Treatment Standards, prior to land disposal as defined in § 268.2(c) of this part.

(f) The treatment standards for F001–F005 nonwastewater constituents carbon disulfide, cyclohexanone, and/or methanol apply to wastes which contain only one, two, or three of these constituents. Compliance is measured for these constituents in the waste extract from test Method 1311, the Toxicity Characteristic Leaching Procedure found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, EPA Publication SW-846, as incorporated by reference in § 260.11. If the waste contains any of these three constituents along with any of the other 25 constituents found in F001–F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, and/or methanol are not required.

(g) Between August 26, 1996 and March 4, 1999 the treatment standards

for the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste numbers K156–K161; and in 40 CFR 261.33 as EPA Hazardous Waste numbers P127, P128, P185, P188–P192, P194, P196–P199, P201–P205, U271, U277–U280, U364–U367, U372, U373, U375–U379, U381–U387, U389–U396, U400–U404, U407, and U409–U411; and soil contaminated with these wastes; may be satisfied by either meeting the constituent concentrations presented in the table “Treatment Standards for Hazardous Wastes” in this section, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at § 268.42 Table 1, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at § 268.42 Table 1, for wastewaters.

(h) Prohibited D004–D011 mixed radioactive wastes and mixed radioactive listed wastes containing metal constituents, that were previously treated by stabilization to the treatment standards in effect at that time and then put into storage, do not have to be re-treated to meet treatment standards in this section prior to land disposal.

(i) [Reserved]

(j) Effective September 4, 1998, the treatment standards for the wastes specified in 40 CFR 261.33 as EPA Hazardous Waste numbers P185, P191, P192, P197, U364, U394, and U395 may be satisfied by either meeting the constituent concentrations presented in the table “Treatment Standards for Hazardous Wastes” in this section, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at § 268.42 Table 1 of this Part, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at § 268.42 Table 1 of this Part, for wastewaters.

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TREATMENT STANDARDS FOR HAZARDOUS WASTES

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
D001 ⁹	Ignitable Characteristic Wastes, except for the § 261.21(a)(1) High TOC Subcategory.	NA	NA	DEACT and meet § 268.48 standards ⁸ ; or RORGS; or CMBST	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴ Technology Code ⁴
	High TOC Ignitable Characteristic Liquids Subcategory based on 40 CFR 261.21(a)(1)—Greater than or equal to 10% total organic carbon. (Note: This subcategory consists of nonwastewaters only.)	NA	NA	RORGS; CMBST; or POLYM	
D002 ⁹	Corrosive Characteristic Wastes.	NA	NA	DEACT and meet § 268.48 standards ⁸	DEACT and meet § 268.48 standards ⁸
D002, D004, D005, D006, D007, D008, D009, D010, D011	Radioactive high level wastes generated during the reprocessing of fuel rods. (Note: This subcategory consists of nonwastewaters only.)	Corrosivity (pH) Arsenic Barium Cadmium Chromium (Total) Lead Mercury Selenium Silver	NA 7440-38-2 7440-39-3 7440-43-9 7440-47-3 7439-92-1 7439-97-6 7782-49-2 7440-22-4	NA NA NA NA NA NA NA NA	HLVIT HLVIT HLVIT HLVIT HLVIT HLVIT HLVIT HLVIT
D003 ⁹	Reactive Substances Subcategory based on 261.23(a)(5), Explosives Subcategory based on 261.23(a)(6),(7), and (8).	NA	NA	DEACT	DEACT
	Unexploded ordnance and other explosive devices which have been the subject of an emergency response.	NA	NA	DEACT and meet § 268.48 standards ⁸	DEACT and meet § 268.48 standards ⁸
	Other Reactives Subcategory based on 261.23(a)(1).	NA	NA	DEACT and meet § 268.48 standards ⁸	DEACT

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Water Reactive Subcategory based on 261.23(a)(2), (3), and (4). (Note: This subcategory consists of nonwastewaters only).	NA	NA	NA	DEACT and meet § 268.48 standards. ⁸
Reactive Cyanides Subcategory based on 261.23(a)(5).	Cyanides (Total) ⁷ Cyanides (Amenable) ⁷	57-12-5 57-12-5	Reserved 0.86	590 30
D004 ⁹ Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Arsenic	7440-38-2	1.4 and meet § 268.48 standards. ⁸	5.0 mg/L TCLP and meet § 268.48 standards. ⁸
D005 ⁹ Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Barium	7440-39-3	1.2 and meet § 268.48 standards. ⁸	21 mg/L TCLP and meet § 268.48 standards. ⁸
D006 ⁹ Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Cadmium	7440-43-9	0.69 and meet § 268.48 standards. ⁸	0.11 mg/L TCLP and meet § 268.48 standards. ⁸
Cadmium Containing Batteries Subcategory. (Note: This subcategory consists of nonwastewaters only).	Cadmium	7440-43-9	NA	RTHRM
Radioactively contaminated cadmium containing batteries. (Note: This subcategory consists of nonwastewaters only)	Cadmium	7440-43-9	NA	Macroencapsulation in accordance with 40 CFR 268.45.
D007 ⁹ Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Chromium (Total)	7440-47-3	2.77 and meet § 268.48 standards. ⁸	0.60 mg/L TCLP and meet § 268.48 standards. ⁸
D008 ⁹ Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Lead	7439-92-1	0.69 and meet § 268.48 standards. ⁸	0.75 mg/L TCLP and meet § 268.48 standards. ⁸
Lead Acid Batteries Subcategory (Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of 40 CFR 268 or exempted under other EPA regulations (see 40 CFR 266.80). This subcategory consists of nonwastewaters only.)	Lead	7439-92-1	NA	RLEAD
Radioactive Lead Solids Subcategory (Note: These lead solids include, but are not limited to, all forms of lead shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydride sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash. This subcategory consists of nonwastewaters only.)	Lead	7439-92-1	NA	MACRO

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
D009 ³	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues. (High Mercury-Organic Subcategory)	Mercury	7439-97-6	NA	IMERC, OR RMERC
	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury-Inorganic Subcategory)	Mercury	7439-97-6	NA	RMERC
	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury and that are residues from RMERC only. (Low Mercury Subcategory)	Mercury	7439-97-6	NA	0.20 mg/L TCLP and meet § 268.48 standards ⁸
	All other nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury and that are not residues from RMERC. (Low Mercury Subcategory)	Mercury	7439-97-6	NA	0.025 mg/L TCLP and meet § 268.48 standards ⁸
	All D009 wastewaters.	Mercury	7439-97-6	0.15 mg/L TCLP and meet § 268.48 standards ⁸	NA
	Elemental mercury contaminated with radioactive materials. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	AMIGM
	Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	IMERC
	Radioactively contaminated mercury containing batteries. (Note: This subcategory consists of nonwastewaters only)	Mercury	7439-97-6	NA	Macroencapsulation in accordances with 40 CFR 268.45.

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D010 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Selenium	7782-49-2	0.82 and meet § 268.48 standards ⁸	5.7 mg/L TCLP and meet § 268.48 standards ⁸
D011 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Silver	7440-22-4	0.43 and meet § 268.48 standards ⁸	0.14 mg/L TCLP and meet § 268.48 standards ⁸
	Radioactively contaminated silver containing batteries. Note: This sub-category consists of nonwastewaters only)	Silver	7440-22-4	NA	Macroencapsulation in accordance with 40 CFR 268.45.
D012 ⁹	Wastes that are TC for Endrin based on the TCLP in SW846 Method 1311.	Endrin	72-20-8	BIODG; or CMBST	0.13 and meet § 268.48 standards ⁸
	Endrin aldehyde		7421-93-4	BIODG; or CMBST	0.13 and meet § 268.48 standards ⁸
D013 ⁹	Wastes that are TC for Lindane based on the TCLP in SW846 Method 1311.	alpha-BHC beta-BHC delta-BHC gamma-BHC (lindane)	319-84-6 319-85-7 319-86-8 58-89-9	CARBN; or CMBST CARBN; or CMBST CARBN; or CMBST CARBN; or CMBST	0.066 and meet § 268.48 standards ⁸ 0.066 and meet § 268.48 standards ⁸ 0.066 and meet § 268.48 standards ⁸ 0.066 and meet § 268.48 standards ⁸
D014 ⁹	Wastes that are TC for Methoxychlor based on the TCLP in SW846 Method 1311.	Methoxychlor	72-43-5	WETOX or CMBST	0.18 and meet § 268.48 standards ⁸
D015 ⁹	Wastes that are TC for Toxaphene based on the TCLP in SW846 Method 1311.	Toxaphene	8001-35-2	BIODG or CMBST	2.6 and meet § 268.48 standards ⁸
D016 ⁹	Wastes that are TC for 2,4-D (2,4-Dichlorophenoxyacetic acid), based on the TCLP in SW846 Method 1311.	2,4,-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	CHOXD, BIODG, or CMBST	10 and meet § 268.48 standards ⁸
D017 ⁹	Wastes that are TC for 2,4,5-TP (Silvex) based on the TCLP in SW846 Method 1311.	2,4,5-TP (Silvex)	93-72-1	CHOXD or CMBST	7.9 and meet § 268.48 standards ⁸

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
D018 ⁹	Wastes that are TC for Benzene based on the TCLP in SW846 Method 1311.	Benzene	71-43-2	0.14 and meet § 268.48 standards ⁸	10 and meet § 268.48 standards ⁸
D019 ⁹	Wastes that are TC for Carbon tetrachloride based on the TCLP in SW846 Method 1311.	Carbon tetrachloride	56-23-5	0.057 and meet § 268.48 standards ⁸	6.0 and meet § 268.48 standards ⁸
D020 ⁹	Wastes that are TC for Chlordane based on the TCLP in SW846 Method 1311.	Chlordane (alpha and gamma isomers)	57-74-9	0.0033 and meet § 268.48 standards ⁸	0.26 and meet § 268.48 standards ⁸
D021 ⁹	Wastes that are TC for Chlorobenzene based on the TCLP in SW846 Method 1311.	Chlorobenzene	108-90-7	0.057 and meet § 268.48 standards ⁸	6.0 and meet § 268.48 standards ⁸
D022 ⁹	Wastes that are TC for Chloroform based on the TCLP in SW846 Method 1311.	Chloroform	67-66-3	0.046 and meet § 268.48 standards ⁸	6.0 and meet § 268.48 standards ⁸
D023 ⁹	Wastes that are TC for o-Cresol based on the TCLP in SW846 Method 1311.	o-Cresol	95-48-7	0.11 and meet § 268.48 standards ⁸	5.6 and meet § 268.48 standards ⁸
D024 ⁹	Wastes that are TC for m-Cresol based on the TCLP in SW846 Method 1311.	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77 and meet § 268.48 standards ⁸	5.6 and meet § 268.48 standards ⁸
D025 ⁹	Wastes that are TC for p-Cresol based on the TCLP in SW846 Method 1311.	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77 and meet § 268.48 standards ⁸	5.6 and meet § 268.48 standards ⁸
D026 ⁹	Wastes that are TC for Cresols (Total) based on the TCLP in SW846 Method 1311.	Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88 and meet § 268.48 standards ⁸	11.2 and meet § 268.48 standards ⁸
D027 ⁹	Wastes that are TC for p-Dichlorobenzene based on the TCLP in SW846 Method 1311.	p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	0.090 and meet § 268.48 standards ⁸	6.0 and meet § 268.48 standards ⁸

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D028 ⁹	Wastes that are TC for 1,2-Dichloroethane based on the TCLP in SW846 Method 1311.	1,2-Dichloroethane	107-06-2	0.21 and meet § 268.48 standards ⁸	6.0 and meet § 268.48 standards ⁸
D029 ⁹	Wastes that are TC for 1,1-Dichloroethylene based on the TCLP in SW846 Method 1311.	1,1-Dichloroethylene	75-35-4	0.025 and meet § 268.48 standards ⁸	6.0 and meet § 268.48 standards ⁸
D030 ⁹	Wastes that are TC for 2,4-Dinitrotoluene based on the TCLP in SW846 Method 1311.	2,4-Dinitrotoluene	121-14-2	0.32 and meet § 268.48 standards ⁸	140 and meet § 268.48 standards ⁸
D031 ⁹	Wastes that are TC for Heptachlor based on the TCLP in SW846 Method 1311.	Heptachlor	76-44-8	0.0012 and meet § 268.48 standards ⁸	0.066 and meet § 268.48 standards ⁸
		Heptachlor epoxide	1024-57-3	0.016 and meet § 268.48 standards ⁸	0.066 and meet § 268.48 standards ⁸
D032 ⁹	Wastes that are TC for Hexachlorobenzene based on the TCLP in SW846 Method 1311.	Hexachlorobenzene	119-74-1	0.055 and meet § 268.48 standards ⁸	10 and meet § 268.48 standards ⁸
D033 ⁹	Wastes that are TC for Hexachlorobutadiene based on the TCLP in SW846 Method 1311.	Hexachlorobutadiene	87-68-3	0.055 and meet § 268.48 standards ⁸	5.6 and meet § 268.48 standards ⁸
D034 ⁹	Wastes that are TC for Hexachloroethane based on the TCLP in SW846 Method 1311.	Hexachloroethane	67-72-1	0.055 and meet § 268.48 standards ⁸	30 and meet § 268.48 standards ⁸
D035 ⁹	Wastes that are TC for Methyl ethyl ketone based on the TCLP in SW846 Method 1311.	Methyl ethyl ketone	78-93-3	0.28 and meet § 268.48 standards ⁸	36 and meet § 268.48 standards ⁸
D036 ⁹	Wastes that are TC for Nitrobenzene based on the TCLP in SW846 Method 1311.	Nitrobenzene	98-95-3	0.068 and meet § 268.48 standards ⁸	14 and meet § 268.48 standards ⁸
D037 ⁹	Wastes that are TC for Pentachlorophenol based on the TCLP in SW846 Method 1311.	Pentachlorophenol	87-86-5	0.089 and meet § 268.48 standards ⁸	7.4 and meet § 268.48 standards ⁸
D038 ⁹	Wastes that are TC for Pyridine based on the TCLP in SW846 Method 1311.	Pyridine	110-86-1	0.014 and meet § 268.48 standards ⁸	16 and meet § 268.48 standards ⁸

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
D039 ⁹	Wastes that are TC for Tetrachloroethylene based on the TCLP in SW846 Method 1311.	Tetrachloroethylene	127-18-4	0.056 and meet § 268.48 standards ⁸	6.0 and meet § 268.48 standards ⁸
D040 ⁹	Wastes that are TC for Trichloroethylene based on the TCLP in SW846 Method 1311.	Trichloroethylene	79-01-6	0.054 and meet § 268.48 standards ⁸	6.0 and meet § 268.48 standards ⁸
D041 ⁹	Wastes that are TC for 2,4,5-Trichlorophenol based on the TCLP in SW846 Method 1311.	2,4,5-Trichlorophenol	95-95-4	0.18 and meet § 268.48 standards ⁸	7.4 and meet § 268.48 standards ⁸
D042 ⁹	Wastes that are TC for 2,4,6-Trichlorophenol based on the TCLP in SW846 Method 1311.	2,4,6-Trichlorophenol	88-06-2	0.035 and meet § 268.48 standards ⁸	7.4 and meet § 268.48 standards ⁸
D043 ⁹	Wastes that are TC for Vinyl chloride based on the TCLP in SW846 Method 1311.	Vinyl chloride	75-01-4	0.27 and meet § 268.48 standards ⁸	6.0 and meet § 268.48 standards ⁸
F001, F002, F003, F004, & F005	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanones, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trifluoro-1,2,2-trifluoroethane, trichloroethylene, trichlorofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in § 261.31.	Acetone Benzene n-Butyl alcohol Carbon disulfide Carbon tetrachloride Chlorobenzene o-Cresol m-Cresol (difficult to distinguish from p-cresol) p-Cresol (difficult to distinguish from m-cresol) Cresol-mixed isomers (Cresyl acid) (sum of o-, m-, and p-cresol concentrations) Cyclohexanone o-Dichlorobenzene Ethyl acetate Ethyl benzene Ethyl ether	67-64-1 71-43-2 71-36-3 75-15-0 56-23-5 108-90-7 95-48-7 108-39-4 106-44-5 131-97-3	0.28 0.14 5.6 3.8 0.057 0.057 0.11 0.77 0.77 0.88	160 10 2.6 NA 6.0 5.6 5.6 5.6 11.2 NA 6.0 33 10 160

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F003 and/or F005 solvent wastes that contain any combination of one or more of the following three solvents as the only listed F001–5 solvents: carbon disulfide, cyclonexanone, and/or methanol. (formerly 268.41(c))	Isobutyl alcohol	78-83-1 67-56-1	5.6 5.6	170 NA
	Methanol	75-9-2 0.089	0.28 30	36 30
	Methylene chloride	78-93-3 108-10-1	0.14 0.14	33 33
	Methyl ethyl ketone	98-95-3 110-86-1	0.068 0.014	14 16
	Methyl isobutyl ketone	127-18-4 108-88-3	0.056 0.080	6.0 10
	Nitrobenzene	71-55-6 79-00-5	0.054 0.054	6.0 6.0
	Pyridine	76-13-1 79-01-6	0.057 0.054	30 6.0
	Terachloroethylene	75-69-4 1330-20-7	0.020 0.32	30 30
	Toluene			
	1,1,1-Trichloroethane			
	1,1,2-Trichloroethane			
	Trichlorethylene			
	Trichlorofluoromethane			
	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)			
F005 solvent waste containing 2-Nitropropane as the only listed F001–5 solvent.	Carbon disulfide Cyclonexanone Methanol	75-15-0 108-94-1 67-56-1	3.8 0.36 5.6	4.8 mg/L TCLP 0.75 mg/L TCLP 0.75 mg/L TCLP
F005 solvent waste containing 2-Ethoxyethanol as the only listed F001–5 solvent.	2-Nitropropane	79-46-9	(WEETOX or CHOXD) fb CARBN; or CMBST	CMBST
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/striping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	2-Ethoxyethanol	110-80-5	BIODG; or CMBST
F007	Spent cyanide plating bath solutions from electroplating operations.	Cadmium Chromium (Total) Cyanides (Total) ⁷ Cyanides (Amenable) ⁷ Lead Nickel Silver	7440-43-9 7440-47-3 57-12-5 57-12-5 7439-92-1 7440-02-0 7440-22-4	0.69 2.77 1.2 0.86 0.69 3.98 NA
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	Cadmium Chromium (Total) Cyanides (Total) ⁷ Cyanides (Amenable) ⁷ Lead Nickel	7440-43-9 7440-47-3 57-12-5 57-12-5 7439-92-1 7440-02-0 7440-02-0	NA 2.77 1.2 0.86 0.69 3.98 NA
				0.11 mg/L TCLP 0.60 mg/L TCLP 590 30 0.75 mg/L TCLP 11 mg/L TCLP 0.14 mg/L TCLP
				0.11 mg/L TCLP 0.60 mg/L TCLP 590 30 0.75 mg/L TCLP 11 mg/L TCLP 0.14 mg/L TCLP
				0.11 mg/L TCLP 0.60 mg/L TCLP 590 30 0.75 mg/L TCLP 11 mg/L TCLP 0.14 mg/L TCLP

§ 268.40**40 CFR Ch. I (7-1-20 Edition)****TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued**

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent	Concentration ³ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴	Wastewaters	Nonwastewaters
		Common name	CAS ² number		
	Silver		7440-22-4	NA	0.14 mg/L TCLP
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	Cadmium Chromium (Total) Cyanides (Total) ⁷ Cyanides (Amendable) ⁷ Lead Nickel Silver	7440-43-9 7440-47-3 57-12-5 57-12-5 7439-92-1 7440-02-0 7440-22-4	NA 2.77 1.2 0.86 0.69 3.98 NA	0.11 mg/L TCLP 0.60 mg/L TCLP 590 30 0.75 mg/L TCLP 11 mg/L TCLP 0.14 mg/L TCLP
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	Cyanides (Total) ⁷ Cyanides (Amendable) ⁷	57-12-5 57-12-5	1.2 0.86	590 NA
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	Cadmium Chromium (Total) Cyanides (Total) ⁷ Cyanides (Amendable) ⁷ Lead Nickel Silver	7440-43-9 7440-47-3 57-12-5 57-12-5 7439-92-1 7440-02-0 7440-22-4	NA 2.77 1.2 0.86 0.69 3.98 NA	0.11 mg/L TCLP 0.60 mg/L TCLP 590 30 0.75 mg/L TCLP 11 mg/L TCLP 0.14 mg/L TCLP
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	Cadmium Chromium (Total) Cyanides (Total) ⁷ Cyanides (Amendable) ⁷ Lead Nickel Silver	7440-43-9 7440-47-3 57-12-5 57-12-5 7439-92-1 7440-02-0 7440-22-4	NA 2.77 1.2 0.86 0.69 3.98 NA	0.11 mg/L TCLP 0.60 mg/L TCLP 590 30 0.75 mg/L TCLP 11 mg/L TCLP 0.14 mg/L TCLP
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	Chromium (Total) Cyanides (Total) ⁷ Cyanides (Amendable) ⁷	7440-47-3 57-12-5 57-12-5	2.77 1.2 0.86	0.60 mg/L TCLP 590 30

F020, F021, F022, F023, F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives, excluding wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F020); (2) pentachlorophenol, or of intermediates used to produce its derivatives (i.e., F021); (3) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (i.e., F022); and from the production of materials previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenols, excluding wastes from equipment used only for the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F023); (2) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (i.e., F026).	HxCDDs (All Hexachlorodibenzo-p-dioxins) HxCDFs (All Hexachlorodibenzo-p-dioxins) PeCDDs (All Pentachlorodibenzo-p-dioxins) PeCDFs (All Pentachlorodibenzo-p-dioxins) Pentachlorophenol TCDDs (All Tetrachlorodibenzo-p-dioxins) TCDFs (All Tetrachlorodibenzo-p-dioxins) TCCDs (All Tetrachlorodibenzo-p-dioxins) 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,3,4,6-Tetrachlorophenol	NA NA NA NA NA 87-86-5 NA NA NA 95-95-4 88-06-2 58-90-2	0.000063 0.000063 0.000063 0.000063 0.000035 0.089 0.000063 0.000063 0.001 0.18 0.035 0.030	0.001 0.001 0.001 0.001 0.001 7.4 0.001 0.001 0.001 7.4 7.4 7.4
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in § 261.31 or § 261.32).	All F024 wastes 2-Chloro-1,3-butadiene 3-Chloropropylene 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropropane 1,3-Dichloropropylene trans-1,3-Dichloropropylene bis(2-Ethylhexyl)phthalate Hexachloroethane Chromium (Total) Nickel	NA 126-99-8 107-05-1 75-34-3 107-06-2 78-87-5 10061-01-5 10061-02-6 117-81-7 67-72-1 7440-47-3 7440-02-0	CMBST ¹¹ 0.057 0.036 0.059 0.21 0.85 0.036 0.036 0.28 0.055 2.77 3.98	0.28 30 6.0 6.0 18 18 18 18 28 30 0.60 mg/L TCLP 11 mg/L TCLP
F025	Condensed light ends from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025—Light Ends Subcategory Desiccants Subcategory	Carbon tetrachloride Chloroform 1,2-Dichloroethane 1,1-Dichloroethylene Methylene chloride 1,1,2-Trichloroethane Trichloroethylene Vinyl chloride	56-23-5 67-66-3 107-06-2 75-35-4 75-9-2 79-00-5 79-01-6 75-01-4	0.057 0.046 0.21 0.025 0.089 0.054 0.054 0.27	6.0 6.0 6.0 6.0 30 6.0 6.0 6.0
	Spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025—Spent Filters/Aids and Desiccants Subcategory	Carbon tetrachloride Chloroform Hexachlorobenzene Hexachlorobutadiene Hexachloroethane Methylene chloride 1,1,2-Trichloroethane Trichloroethylene Vinyl chloride	56-23-5 67-66-3 118-74-1 87-68-3 67-72-1 75-9-2 79-00-5 79-01-6 75-01-4	0.057 0.046 0.055 0.055 0.055 0.089 0.054 0.054 0.27	6.0 6.0 5.6 30 6.0 6.0 6.0 6.0

§ 268.40**40 CFR Ch. I (7-1-20 Edition)****TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued**

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹ [Note: NA means not applicable]	Regulated hazardous constituent	Concentration ³ in mg/L; or Technology Code ⁴	Nonwastewaters	
		Common name	CAS ² number	Wastewaters	
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenois. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	HxCDDs (All Hexachlorodibenz-p-dioxins) HxCDFs (All Hexachlorodibenzofurans) PeCDDs (All Pentachlorodibenz-p-dioxins) PeCDFs (All Pentachlorodibenzofurans) Pentachlorophenol TCDDs (All Tetrachlorodibenz-p-dioxins) TCDFs (All Tetrachlorodibenzofurans) 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,3,4,6-Tetrachlorophenol	NA NA NA NA 87-86-5 NA NA NA 95-95-4 88-06-2 58-90-2	0.000063 0.000063 0.000063 0.000035 0.089 0.000063 0.000063 0.18 0.035 0.030	0.001 0.001 0.001 0.001 7.4 0.001 0.001 0.001 7.4 7.4 7.4
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Wastes Nos. F020, F021, F023, F026, and F027.	HxCDDs (All Hexachlorodibenz-p-dioxins) HxCDFs (All Hexachlorodibenzofurans) PeCDDs (All Pentachlorodibenz-p-dioxins) PeCDFs (All Pentachlorodibenzofurans) Pentachlorophenol TCDDs (All Tetrachlorodibenz-p-dioxins) TCDFs (All Tetrachlorodibenzofurans) 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,3,4,6-Tetrachlorophenol	NA NA NA NA 87-86-5 NA NA NA 95-95-4 88-06-2 58-90-2	0.000063 0.000063 0.000063 0.000035 0.089 0.000063 0.000063 0.18 0.035 0.030	0.001 0.001 0.001 0.001 7.4 0.001 0.001 0.001 7.4 7.4 7.4

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F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with §261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (<i>i.e.</i> , F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K01 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or penta-chlorophenol.	<table border="1"> <tbody> <tr> <td>Acenaphthene</td><td>83-32-9</td><td>0.059</td><td>3.4</td></tr> <tr> <td>Anthracene</td><td>120-12-7</td><td>0.059</td><td>3.4</td></tr> <tr> <td>Benz(a)anthracene</td><td>56-55-3</td><td>0.059</td><td>3.4</td></tr> <tr> <td>Benzol(b)fluoranthene (difficult to distinguish from benzol(k)fluoranthene)</td><td>205-99-2</td><td>0.11</td><td>6.8</td></tr> <tr> <td>Benzol(k)fluoranthene (difficult to distinguish from benzol(b)fluoranthene)</td><td></td><td>0.11</td><td></td></tr> <tr> <td>Benzol(a)pyrene</td><td>207-08-9</td><td>0.11</td><td>6.8</td></tr> <tr> <td>Chrysene</td><td>50-32-8</td><td>0.061</td><td>3.4</td></tr> <tr> <td>Dibenz(a, h)anthracene</td><td>218-01-9</td><td>0.059</td><td>3.4</td></tr> <tr> <td>Fluorene</td><td>86-73-7</td><td>0.059</td><td>3.4</td></tr> </tbody> </table>	Acenaphthene	83-32-9	0.059	3.4	Anthracene	120-12-7	0.059	3.4	Benz(a)anthracene	56-55-3	0.059	3.4	Benzol(b)fluoranthene (difficult to distinguish from benzol(k)fluoranthene)	205-99-2	0.11	6.8	Benzol(k)fluoranthene (difficult to distinguish from benzol(b)fluoranthene)		0.11		Benzol(a)pyrene	207-08-9	0.11	6.8	Chrysene	50-32-8	0.061	3.4	Dibenz(a, h)anthracene	218-01-9	0.059	3.4	Fluorene	86-73-7	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4																																			
Anthracene	120-12-7	0.059	3.4																																			
Benz(a)anthracene	56-55-3	0.059	3.4																																			
Benzol(b)fluoranthene (difficult to distinguish from benzol(k)fluoranthene)	205-99-2	0.11	6.8																																			
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Chrysene	50-32-8	0.061	3.4																																			
Dibenz(a, h)anthracene	218-01-9	0.059	3.4																																			
Fluorene	86-73-7	0.059	3.4																																			
F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K01 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.																																					

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
	Indeno[1,2,3-c,d]pyrene Naphthalene Phenanthrene Pyrene Arsenic Chromium (Total)	Indeno[1,2,3-c,d]pyrene Naphthalene Phenanthrene Pyrene Arsenic Chromium (Total)	193-39-5 91-20-3 85-01-8 129-00-0 7440-38-2 7440-47-3	0.0056 0.059 0.059 0.067 1.4 2.77	Concentration ³ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴ 3.4 5.6 5.6 8.2 5.0 mg/L TCLP 0.60 mg/L TCLP
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use horseradish preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Arsenic Chromium (Total)	7440-38-2 7440-47-3	1.4 2.77	5.0 mg/L TCLP 0.60 mg/L TCLP
F037	Petroleum refinery primary oil/water/solids separation sludge—Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.	Acenaphthene Anthracene Benzene Benz(a)anthracene Benz(2-Ethylhexyl) phthalate Chrysene Di-n-butyl phthalate Ethylbenzene Fluorene Naphthalene Phenanthrene Phenol Pyrene Toluene Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	83-32-9 120-12-7 71-43-2 56-55-3 50-92-8 117-81-7 218-01-9 84-74-2 100-41-4 86-73-7 91-20-3 85-01-8 108-95-2 129-00-0 108-88-3 1330-20-7	0.059 0.059 0.14 0.059 0.061 0.28 0.059 0.057 0.057 0.059 0.059 0.059 0.039 0.067 0.080 0.32	NA 3.4 10 3.4 3.4 28 3.4 28 10 NA 5.6 5.6 6.2 8.2 10 30
	Chromium (Total) Cyanides (Total) ⁷ Lead Nickel	Chromium (Total) Cyanides (Total) ⁷ Lead Nickel	7440-47-3 57-12-5 7439-92-1 7440-02-0	2.77 1.2 0.69 NA	0.60 mg/L TCLP 590 NA 11 mg/L TCLP

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F038	<p>Petroleum refinery secondary (emulsified) oil/water/solids separation sludge and/or float generated from the physical and/or chemical separation of oil/watersolids in process wastewater and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air floatation (AF) units, tanks and foundations, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in §261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological units) and F037, K048, and K051 are not included in this listing.</p>	Benzene Benz(a)pyrene bis(2-Ethyhexyl) phthalate Chrysene Di-n-butyl phthalate Ethybenzene Fluorene Naphthalene Phenanthrene Phenol Pyrene Toluene Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations) Chromium (Total) Cyanides (Total) Lead Nickel	71-43-2 50-32-8 117-81-7 218-01-9 84-74-2 100-41-4 86-73-7 91-20-3 85-01-8 108-95-2 129-00-0 108-88-3 1330-20-7 7440-47-3 57-12-5 7439-92-1 7440-20-0	0.14 0.061 0.28 0.059 0.057 0.057 0.057 0.059 0.059 0.059 0.039 0.067 0.080 0.32 0.32 0.77 1.2 0.69 NA	10 3.4 3.4 3.4 28 10 NA 5.6 5.6 6.2 8.2 10 30 NA NA NA
F039	<p>Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)</p>	Acenaphthylene Acenaphthene Acetone Acetonitrile Acetophenone 2-Acetylaminofluorene Acrolein Acryonitrile Aldrin 4-Aminobiphenyl Aniline o-Anisidine (2-methoxyaniline) Anthracene Aramite alpha-BHC beta-BHC delta-BHC gamma-BHC Benzene Benz(a)anthracene Benz(o)bifluoranthene (difficult to distinguish from benz(o)fluoranthene) Benz(o)fluoranthene (difficult to distinguish from benz(b)fluoranthene) Benz(o,i)phenylene Benz(a)pyrene Bromodichloromethane Methyl bromide (Bromomethane) 4-Bromophenyl phenyl ether n-Buyl alcohol Butyl benzyl phthalate	208-96-8 83-32-9 67-64-1 75-05-8 96-86-2 53-96-3 107-02-8 107-13-1 309-00-2 92-67-1 62-53-3 90-04-0 120-12-7 140-57-8 319-84-6 319-85-7 319-86-8 58-89-9 71-43-2 56-55-3 205-98-2 207-08-9 191-24-2 50-32-8 75-27-4 74-83-9 101-55-3 71-36-3 85-68-7	0.059 0.059 0.28 5.6 0.010 0.059 0.29 0.24 0.021 0.13 0.81 0.010 0.059 0.36 0.00014 0.00014 0.023 0.0017 0.14 0.059 0.11 0.11 0.0055 0.061 0.35 0.11 0.055 5.6 0.017	3.4 3.4 160 NA 9.7 140 NA 84 0.066 NA 14 0.66 3.4 NA 0.066 0.066 0.066 10 3.4 6.8 6.8 1.8 3.4 15 15 2.6 28

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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Waste code	Waste description and treatment/Regulatory subcategory ¹	Common name	Regulated hazardous constituent	CAS ² number	Concentration ³ in mg/L; or Technology Code ⁴	Wastewaters		Nonwastewaters
						mg/kg unless noted "mg/L TCLP"; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted "mg/L TCLP"; or Technology Code ⁴	
	2-sec-Butyl-4,6-dinitrophenol (Dinosob)		88-85-7		0.066	2.5		
	Carbon disulfide		75-15-0		3.8	NA		
	Carbon tetrachloride		56-23-5		0.057	6.0		
	Chordane (alpha and gamma isomers)		57-74-9		0.0033	0.26		
	p-Chloroaniline		106-47-8		0.46	16		
	Chlorobenzene		108-90-7		0.057	6.0		
	Chlorobenzilate		510-15-6		0.10	NA		
	2-Chloro-1,3-butadiene		126-99-8		0.057	NA		
	Chlorodibromomethane		124-48-1		0.057	15		
	Chloroethane		75-00-3		0.27	6.0		
	bis(2-Chloroethoxy)methane		111-91-1		0.036	7.2		
	bis(2-Chloroethyl)ether		111-44-4		0.033	6.0		
	Chloroform		67-66-3		0.046	6.0		
	bis(2-Chloroisopropyl)ether		39638-32-9		0.055	7.2		
	p-Chloro-m-cresol		59-50-7		0.018	14		
	Chromomethane (Methyl chloride)		74-87-3		0.19	30		
	2-Chloronaphthalene		91-58-7		0.055	5.6		
	2-Chlorophenol		95-57-8		0.044	5.7		
	3-Chloropropylene		107-05-1		0.036	30		
	Chrysene		218-01-9		0.059	3.4		
	o-Cresol		95-48-7		0.11	5.6		
	p-Cresidine		120-71-8		0.010	0.66		
	m-Cresol (difficult to distinguish from p-cresol)		108-39-4		0.77	5.6		
	p-Cresol (difficult to distinguish from m-cresol)		106-44-5		0.77	5.6		
	Cyclonexane		108-94-1		0.36	NA		
	1,2-Dibromo-3-chloropropane		96-12-8		0.11	15		
	Ethylene dibromide (1,2-Dibromoethane)		106-93-4		0.028	15		
	2,4-D (2,4-Dichlorophenoxyacetic acid)		74-95-3 94-75-7		0.11 0.72	15 10		
	o,p-DD		53-19-0		0.023	0.087		
	p,p-DDD		72-54-8		0.023	0.087		
	o,p'-DDE		3924-82-6		0.031	0.087		
	o,p'-DDT		72-55-9 789-02-6		0.0039	0.087		

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p,p'-DDT	50-29-3	0.0039	0.087
Dibenz(a,h)anthracene	53-70-3	0.0055	8.2
Dibenz(a,e)pyrene	192-65-4	0.061	NA
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieidin	60-57-1	0.017	0.13
Diethyl phthalate	84-66-2	0.20	0.66
2,4-Dimethylaniline (2,4-xylylidine)	95-68-1	0.010	14
2,4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl phthalate	117-84-0	0.017	28
Di-n-propylnitrosamine	62-64-7	0.40	14
1,4-Dioxane	123-91-1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	NA
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	NA
1,2-Diphenylhydrazine	122-66-7	0.087	NA
Disulfoton	298-04-4	0.017	6.2
Endosulfan I	939-98-8	0.023	0.066
Endosulfan II	332-13-6-5	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
Ethyl acetate	141-78-6	0.34	33
Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
Ethyl benzene	100-41-4	0.057	10
Ethy ether	60-29-7	0.12	160
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
Ethylene oxide	75-21-8	0.12	NA
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Common name	Regulated hazardous constituent		Wastewaters	Nonwastewaters
			CAS ² number	Concentration ³ in mg/L; or Technology Code ⁴		
		Fluorene	86-73-7	0.059	3.4	
		Heptachlor	76-44-8	0.0012	0.066	
		Heptachlor epoxide	1024-57-3	0.016	0.066	
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HxCDD)	35822-46-9	0.000035	0.0025	
		Heptachlorobenzofuran (1,2,3,4,6,7,8-HxCDF)	67562-39-4	0.000035	0.0025	
		Hexachlorobenzene	119-74-1	0.055	10	
		Hexachlorobutadiene	87-68-3	0.055	5.6	
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4	
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001	
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001	
		Hexachloroethane	67-72-1	0.055	30	
		Hexachloropropylene	188-71-7	0.035	30	
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4	
		Indomethane	74-88-4	0.019	65	
		Isobutyl alcohol	78-93-1	5.6	170	
		Isodrin	465-73-6	0.021	0.066	
		Isosafrole	120-59-1	0.081	2.6	
		Kepone	143-50-8	0.0011	0.13	
		Methacrylonitrile	129-98-7	0.24	84	
		Methanol	67-56-1	5.6	NA	
		Methyl acrylene	91-80-5	0.081	1.5	
		Methoxychlor	72-43-5	0.25	0.18	
		3-Methylcholanthrene	56-49-5	0.0055	15	
		4,4-Methylene bis(2-chloroaniline)	101-14-4	0.50	30	
		Methylene chloride	75-09-2	0.089	30	
		Methyl ethyl ketone	78-93-3	0.28	36	
		Methyl isobutyl ketone	108-10-1	0.14	33	
		Methyl methacrylate	80-62-6	0.14	160	
		Methyl methanesulfonate	66-27-3	0.018	NA	
		Methyl parathion	298-00-0	0.014	4.6	
		Naphthalene	91-20-3	0.059	5.6	
		2-Naphthylamine	91-59-8	0.52	NA	
		p-Nitroaniline	100-01-6	0.028	28	

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Nitrobenzene	98–95–3	14
5-Nitro-o-tolidine	99–55–8	0.32
p-Nitrophenol	100–02–7	0.12
N-Nitrosodiethylamine	55–18–5	0.40
N-Nitrosodimethylamine	62–75–9	0.40
N-Nitroso-di-n-butylamine	924–16–3	0.40
N-Nitrosomethylisobutyramine	1055–95–6	0.40
N-Nitrosomorpholine	59–89–2	0.40
N-Nitrosopiperidine	100–75–4	0.013
N-Nitrosopyrrolidine	930–55–2	0.013
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268–87–9	0.000063
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001–02–0	0.000063
Parathion	56–38–2	0.014
Total PCBs (sum of all PCB isomers, or all Aroclors)	1336–36–3	0.10
Pentachlorobenzene	609–93–5	0.055
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035
Pentachloronitrobenzene	82–68–8	0.055
Phenacetin	87–96–5	0.089
Phenanthrene	62–44–2	0.081
Phenol	85–01–8	0.059
2,4-Dimethylaniline (2,4-xylylidine)	108–95–2	0.039
Phorale	108–45–2	0.010
Phthalic anhydride	298–02–2	0.021
Pronamide	85–44–9	0.025
Pyrene	23950–58–5	0.093
Pyridine	129–00–0	0.067
Safrole	110–86–1	0.014
Silvex (2,4,5-TP)	94–59–7	0.081
2,4,5-T	93–72–1	0.72
1,2,4,5-Tetrachlorobenzene	92–76–5	0.72
TCDs (All Tetrachlorodibenzo-p-dioxins)	95–94–3	0.055
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063
1,1,1,2-Tetrachloroethane	NA	0.000063
1,1,2,2-Tetrachloroethane	630–20–6	0.057
Tetrachloroethylene	79–34–6	0.057
2,3,4,6-Tetrachlorophenol	127–18–4	0.056
Toluene	58–90–2	0.030
Toxaphene	108–58–3	0.080
Bromoform (Tribromomethane)	8001–35–2	0.0095
1,2,4-Trichlorobenzene	75–25–2	0.63
1,1,1-Trichloroethane	120–82–1	0.055
1,1,2-Trichloroethane	71–55–6	0.054
	79–00–5	0.054

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Common name	Regulated hazardous constituent		Wastewaters	Nonwastewaters
			CAS ² number	Concentration ³ in mg/L; or Technology Code ⁴		
		Trichloroethylene Trichlorofluoromethane 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 1,2,3-Trichloropropane 1,1,2-Trichloro-1,2,2-trifluoroethane tris(2,3-Dibromopropyl) phosphate Vinyl chloride Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations) ⁵	79-01-6 75-69-4 95-95-4 88-06-2 96-18-4 76-13-1 126-72-7 75-01-4 1330-20-7	0.054 0.020 0.18 0.035 0.85 0.057 0.11 0.27 0.32	6.0 30 7.4 7.4 30 30 NA 6.0 30	
		Antimony Arsenic Barium Beryllium Cadmium Chromium (Total) Cyanides (Total) ⁶ Cyanides (Amenable) ⁷ Fluoride Lead Mercury Nickel Selenium Silver Sulfide Thallium Vanadium	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 57-12-5 16984-48-8 7439-92-1 7439-97-6 7440-02-0 7782-49-2 7440-22-4 8496-25-8 7440-28-0 7440-62-2	1.9 1.4 1.2 0.82 0.69 2.77 1.2 0.86 35 0.69 0.15 3.98 0.82 0.43 14 1.4 NA NA NA NA NA NA NA NA NA	1.15 mg/L TCLP 5.0 mg/L TCLP 21 mg/L TCLP NA 0.11 mg/L TCLP 0.60 mg/L TCLP 590 NA NA 0.75 mg/L TCLP 0.25 mg/L TCLP 11 mg/L TCLP 5.7 mg/L TCLP 0.14 mg/L TCLP NA NA NA NA	
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	Naphthalene Pentachlorophenol Phenanthrene Pyrene Toluene Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations) Lead	91-20-3 87-86-5 85-01-8 129-00-0 109-88-3 1330-20-7 7439-92-1	0.059 0.089 0.059 0.067 0.080 0.32 0.69	5.6 7.4 5.6 8.2 10 30 0.75 mg/L TCLP	
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	Chromium (Total) Lead	7440-47-3 7439-92-1	2.77 0.69	0.60 mg/L TCLP 0.75 mg/L TCLP	

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K003	Wastewater treatment sludge from the production of molybdate orange pigments.	Chromium (Total) Lead	7440-47-3 7439-92-1	2.77 0.69	0.60 mg/L TCLP 0.75 mg/L TCLP
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	Chromium (Total) Lead	7440-47-3 7439-92-1	2.77 0.69	0.60 mg/L TCLP 0.75 mg/L TCLP
K005	Wastewater treatment sludge from the production of chrome green pigments.	Chromium (Total) Lead Cyanides (Total) ⁷	7440-47-3 7439-92-1 57-12-5	2.77 0.69 1.2	0.60 mg/L TCLP 0.75 mg/L TCLP 590
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous).	Chromium (Total) Lead	7440-47-3 7439-92-1	2.77 0.69	0.60 mg/L TCLP 0.75 mg/L TCLP
	Wastewater treatment sludge from the production of chrome oxide green pigments (hydrated).	Chromium (Total) Lead	7440-47-3 7439-92-1	2.77 0.69	0.60 mg/L TCLP NA
K007	Wastewater treatment sludge from the production of iron blue pigments.	Chromium (Total) Lead Cyanides (Total) ⁷	7440-47-3 7439-92-1 57-12-5	2.77 0.69 1.2	0.60 mg/L TCLP 0.75 mg/L TCLP 590
K008	Oven residue from the production of chrome oxide green pigments.	Chromium (Total) Lead	7440-47-3 7439-92-1	2.77 0.69	0.60 mg/L TCLP 0.75 mg/L TCLP
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	Chloroform	67-66-3	0.046	6.0
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	Chloroform	67-66-3	0.046	6.0
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	Acetonitrile Acrylonitrile Acrylamide Benzene Cyanide (Total)	75-05-8 107-13-1 79-06-1 71-43-2 57-12-5	5.6 0.24 19 0.14 1.2	38 84 23 10 590
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	Acetonitrile Acrylonitrile Acrylamide Benzene Cyanide (Total)	75-05-8 107-13-1 79-06-1 71-43-2 57-12-5	5.6 0.24 19 0.14 1.2	38 84 23 10 590
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	Acetonitrile Acrylonitrile Acrylamide Benzene Cyanide (Total)	75-05-8 107-13-1 79-06-1 71-43-2 57-12-5	5.6 0.24 19 0.14 1.2	38 84 23 10 590
K015	Still bottoms from the distillation of benzyl chloride.	Anthracene Benzal chloride Benzobifluoranthene (difficult to distinguish from benzofluoranthene) Benzofluoranthene (difficult to distinguish from benzobifluoranthene)	120-12-7 98-87-3 205-99-2 207-08-9	0.059 0.055 0.11 0.11	3.4 6.0 6.8 6.8

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Common name	CAS ² number	Wastewaters		Nonwastewaters
				Regulated hazardous constituent	Concentration ³ in mg/L; or Technology Code ⁴	
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	Phenanthrene Toluene Chromium (Total) Nickel	85-01-8 108-88-3 7440-47-3 7440-02-0	0.059 0.080 2.77 3.98	5.6 10 0.60 mg/L TCLP 11 mg/L TCLP	
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Tetrachloroethylene	118-74-1 87-68-3 77-47-4 67-72-1 127-18-4	0.055 0.055 0.057 0.055 0.056	10 5.6 2.4 30 6.0	
K018	Heavy ends from the fractionation column in ethyl chloride production.	bis(2-Chloroethyl)ether 1,2-Dichloropropane 1,2,3-Trichloropropane	111-44-4 78-87-5 96-18-4	0.033 0.85 0.85	6.0 18 30	
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	Chloroethane Chloromethane 1,1-Dichloroethane 1,2-Dichloroethane Hexachlorobutadiene Hexachloroethane Pentachloroethane 1,1,1-Trichloroethane	75-00-3 74-87-3 75-34-3 107-06-2 118-74-1 87-68-3 67-72-1 76-01-7 71-55-6	0.27 0.19 0.059 0.21 0.055 0.055 0.055 NA 0.054	6.0 NA 6.0 6.0 10 5.6 30 6.0	
		bis(2-Chloroethyl)ether Chlorobenzene Chloroform p-Dichlorobenzene 1,2-Dichloroethane Fluorene Hexachloroethane Naphthalene Phenanthrene 1,2,4,5-Tetrachlorobenzene Tetrachloroethylene 1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	111-44-4 108-90-7 67-66-3 106-46-7 107-06-2 86-73-7 67-72-1 91-20-3 85-01-8 95-94-3 127-18-4 120-82-1 71-55-6	0.033 0.057 0.046 0.090 0.21 0.059 0.055 0.059 0.059 0.055 0.056 0.055 0.054	6.0 6.0 6.0 NA 6.0 NA 30 5.6 5.6 NA 6.0 19 6.0	

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K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	1,2-Dichloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethylene	107-06-2 79-34-6 127-18-4	0.21 0.057 0.056	6.0 6.0 6.0
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	Carbon tetrachloride Chloroform Antimony	56-23-5 67-66-3 7440-36-0	0.057 0.046 1.9	6.0 6.0 1.15 mg/L TCLP
K022	Distillation bottoms tars from the production of phenol/acetone from cumene.	Toluene Acetophenone Diphenylamine (difficult to distinguish from diphenylnitrosoamine) Diphenylnitrosoamine (difficult to distinguish from diphenylamine) Phenol Chromium (Total) Nickel	108-88-3 96-86-2 122-39-4 86-30-6 108-95-2 7440-47-3 7440-02-0	0.080 0.010 0.92 0.92 0.039 2.77 3.98	10 9.7 13 13 6.2 0.60 mg/L TCLP 11 mg/L TCLP
K023	Distillation light ends from the production of phthalic anhydride from napthalene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid) Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0 85-44-9	0.055 0.055	28 28
K024	Distillation bottoms from the production of phthalic anhydride from napthalene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid) Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0 85-44-9	0.055 0.055	28 28
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	NA	NA	LLEXTR fb SSTRP 1b CARBN; or CMBST	CMBST
K026	Stripping still tails from the production of methyl ethyl pyridines.	NA	NA	CMBST	CMBST
K027	Centrifuge and distillation residues from toluene diisocyanate production.	NA	NA	CARBN; or CMBST	CMBST
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	1,1-Dichloroethane trans-1,2-Dichloroethylene Hexachlorobutadiene Hexachloroethane Pentachloroethane 1,1,1,2-Tetrachloroethane 1,1,1,2-Tetrachloroethylene 1,1,1-Trichloroethane 1,1,1,2-Trichloroethane Cadmium Chromium (Total) Lead Nickel	75-94-3 156-60-5 87-68-3 67-72-1 76-01-7 630-20-6 79-24-6 127-18-4 71-55-6 79-00-5 7440-43-9 7440-47-3 7439-92-1 7440-02-0	0.059 0.054 0.055 0.055 NA 0.057 6.0 0.057 0.056 0.054 0.054 0.69 2.77 0.69 3.98	6.0 30 5.6 30 6.0 6.0 6.0 6.0 6.0 6.0 NA 0.60 mg/L TCLP 0.75 mg/L TCLP 11 mg/L TCLP

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Common name	Regulated hazardous constituent		Wastewaters	Nonwastewaters
			CAS ² number	Concentration ³ in mg/L; or Technology Code ⁴		
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	Chloroform 1,2-Dichloroethane 1,1-Dichloroethylene 1,1,1-Trichloroethane Vinyl chloride	67-66-3 107-06-2 75-35-4 71-55-6 75-01-4	0.046 0.21 0.025 0.054 0.27	6.0 6.0 6.0 6.0 6.0	
K030	Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.	o-Dichlorobenzene p-Dichlorobenzene Hexachlorobutadiene Hexachloroethane Hexachloropropylene Pentachlorobenzene Pentachloroethane 1,2,4,5-Tetrachlorobenzene Tetrachloroethylene 1,2,4-Trichlorobenzene	95-50-1 106-46-7 87-68-3 67-72-1 188-71-7 609-93-5 76-01-7 95-94-3 127-18-4 120-82-1	0.098 0.090 0.055 0.055 NA NA NA 0.055 0.056 0.055	NA NA 5.6 30 30 10 6.0 14 6.0 19	
K031	By-product salts generated in the production of MSMA and dacodrylic acid.	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP	
K032	Wastewater treatment sludge from the production of chlordane.	Hexachlorocyclopentadiene Chlordane (alpha and gamma isomers) Heptachlor Heptachlor epoxide	77-47-4 57-74-9 76-44-8 1024-57-3	.057 0.0033 0.0012 0.016	2.4 0.26 0.066 0.066	
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	
K035	Wastewater treatment sludges generated in the production of cresote.	Acenaphthene Anthracene Benz(a)anthracene Benz(a)pyrene Chrysene o-Cresol m-Cresol (difficult to distinguish from p-cresol)	83-32-9 120-12-7 56-55-3 50-32-8 218-01-9 95-48-7 108-39-4	NA NA 0.059 0.061 0.059 0.11 0.77	3.4 3.4 3.4 3.4 3.4 5.6 5.6	

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K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	Disulfoton	106-44-5 53-70-3 206-44-0 86-73-7 193-39-5 91-20-3 85-01-1 108-95-2 129-00-0	0.77 NA 0.068 NA NA 0.059 0.059 0.039 0.067	5.6 8.2 3.4 3.4 3.4 5.6 5.6 6.2 8.2
K037	Wastewater treatment sludges from the production of disulfoton.	Disulfoton Toluene	299-04-4 108-88-3	0.017 0.080	6.2 10
K038	Wastewater from the washing and stripping of phorate production.	Phorate	298-02-2	0.021	4.6
K039	Filter cake from the filtration of diethylphosphorothioic acid in the production of phorate.	NA	NA	CARBNI; or CMBST	CMBST
K040	Wastewater treatment sludge from the production of phorate.	Phorate	298-02-2	0.021	4.6
K041	Wastewater treatment sludge from the production of toxaphene.	Toxaphene	8001-35-2	0.0095	2.6
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	o-Dichlorobenzene p-Dichlorobenzene Pentachlorobenzene 1,2,4,5-Tetrachlorobenzene 1,2,4-Trichlorobenzene	95-50-1 106-46-7 608-92-5 95-94-3 120-82-1	0.088 0.090 0.055 0.055 0.055	6.0 6.0 10 14 19
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	2,4-Dichlorophenol 2,6-Dichlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,3,4,6-Tetrachlorophenol Pentachlorophenol Tetrachloroethylene HxCDDs (All Hexachlorodibenz-p-dioxins) HxCDFs (All Hexachlorodibenzofurans) PeCDDs (All Pentachlorodibenz-p-dioxins) PeCDFs (All Pentachlorodibenzofurans) TCDDs (All Tetrachlorodibenz-p-dioxins) TCDFs (All Tetrachlorodibenzofurans)	120-83-2 187-63-0 95-95-4 88-06-2 58-90-2 87-86-5 127-18-4 NA NA NA NA NA NA	0.044 0.044 0.18 0.035 0.030 0.089 0.056 0.000063 0.000063 0.000063 0.000063 0.000063	14 14 7.4 7.4 7.4 7.4 6.0 0.001 0.001 0.001 0.001 0.001

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	NA	NA	DEACT	DEACT
K045	Spent carbon from the treatment of wastewater containing explosives.	NA	NA	DEACT	DEACT
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	Lead	7439-92-1	0.69	0.75 mg/L TCLP
K047	Pink/red water from TNT operations.	NA	NA	DEACT	DEACT
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	Benzene Benz(a)pyrene bis(2-Ethyhexyl)phthalate Chrysene Di-n-butyl phthalate Ethylbenzene Fluorene Naphthalene Phenanthrene Phenol Pyrene Toluene Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	71-43-2 50-32-8 117-81-7 218-01-9 84-74-2 100-41-4 86-73-7 91-20-3 85-01-8 108-95-2 129-00-0 108-88-33 1330-20-7	0.14 0.061 0.28 0.059 0.057 0.057 0.059 0.059 0.059 0.039 0.067 0.080 0.32	10 3.4 28 3.4 28 10 NA 5.6 5.6 6.2 8.2 10 30
K049	Slop oil emulsion solids from the petroleum refining industry.	Chromium (Total) Chromides (Total) ⁷ Lead Nickel	7440-47-3 57-12-5 7439-92-1 7440-02-0	2.77 1.2 0.69 NA	0.60 mg/L TCLP NA 11 mg/L TCLP

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	Pyrene Toluene Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations) Cyanides (Total) ⁷ Chromium (Total) ⁷ Lead Nickel	129-00-0 108-88-3 1330-20-7 57-12-5 7440-47-3 7439-92-1 7440-02-0 57-12-5 7440-47-3 7439-92-1 7440-02-0	0.067 0.080 0.32 1.2 2.77 0.69 NA 1.2 2.77 0.69 NA	8.2 10 30 590 0.60 mg/L TCLP NA 11 mg/L TCLP
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.			
K051	API separator sludge from the petroleum refining industry.			
K052	Tank bottoms (leaded) from the petroleum refining industry.			

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent	Concentration ³ in mg/L; or Technology Code ⁴	Wastewaters	Nonwastewaters
		Common name	CAS ² number		
	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations) Chromium (Total) Cyanides (Total) ⁷ Lead Nickel	1330-20-7 7440-47-3 57-12-5 7439-92-1 7440-02-0	0.32 2.77 1.2 0.69 NA	30 0.60 mg/L TCLP 590 NA 11 mg/L TCLP	
K060	Ammonia still lime sludge from coking operations.	Benzene Benz(a)pyrene Naphthalene Phenol Cyanides (Total) ⁷	71-43-2 50-32-8 91-20-3 108-95-2 57-12-5	0.14 0.061 0.059 0.039 1.2	10 3.4 5.6 6.2 590
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	Antimony Arsenic Barium Beryllium Cadmium Chromium (Total) Lead Mercury Nickel Selenium Silver Thallium Zinc	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7439-92-1 7439-97-6 7440-02-0 7782-49-2 7440-22-4 7440-28-0 7440-66-6	NA NA NA NA NA 2.77 0.69 NA 3.98 NA NA NA NA	1.15 mg/L TCLP 5.0 mg/L TCLP 21 mg/L TCLP 1.22 mg/L TCLP 0.11 mg/L TCLP 0.60 mg/L TCLP 0.75 mg/L TCLP 0.025 mg/L TCLP 11 mg/L TCLP 5.7 mg/L TCLP 0.14 mg/L TCLP 0.20 mg/L TCLP 4.3 mg/L TCLP
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	Chromium (Total) Lead Nickel	7440-47-3 7439-92-1 7440-02-0	2.77 0.69 3.98	0.60 mg/L TCLP 0.75 mg/L TCLP NA
K069	Emission control dust/sludge from secondary lead smelting—Calcium Sulfate (Low Lead) Subcategory Emission control dust/sludge from secondary lead smelting—Non-Calcium Sulfate (High Lead) Subcategory	Cadmium Lead	7440-43-9 7439-92-1	0.69 0.69	0.11 mg/L TCLP 0.75 mg/L TCLP
		NA	NA	NA	READ

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K071	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are residues from RMEERC.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
K071	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are not residues from RMEERC.	Mercury	7439-97-6	NA	0.025 mg/L TCLP
All K071 wastewaters.		Mercury	7439-97-6	0.15	NA
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	Carbon tetrachloride Chloroform Hexachloroethane Tetrachloroethylene 1,1,1-Trichloroethane	56-23-5 67-66-3 67-72-1 127-18-4 71-55-6	0.057 0.046 0.055 0.056 0.054	6.0 6.0 30 6.0 6.0
K083	Distillation bottoms from aniline production.	Aniline Benzene Cyclohexanone Diphenylamine (difficult to distinguish from diphenylnitrosamine) Diphenylnitrosoamine (difficult to distinguish from diphenylamine) Nitrobenzene Phenol Nickel	62-53-3 71-43-2 108-94-1 122-39-4 86-30-6 98-95-3 108-95-2 7440-02-0	0.81 0.14 0.36 0.92 0.92 0.068 0.039 3.98	14 10 NA 13 13 14 6.2 11 mg/L TCLP
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	Benzene Chlorobenzene m-Dichlorobenzene o-Dichlorobenzene p-Dichlorobenzene Hexachlorobenzene Total PCBs (sum of all PCB isomers, or all Aroclors) Pentachlorobenzene 1,2,4,5-Tetrachlorobenzene 1,2,4-Trichlorobenzene	71-43-2 108-90-7 541-73-1 95-50-1 106-46-7 118-74-1 1336-36-3 608-93-5 95-94-3 120-82-1	0.14 0.057 0.036 0.088 0.090 0.055 0.10 0.055 0.055 0.055	10 6.0 6.0 6.0 6.0 10 10 10 14 19
K086	Solvent wastes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	Acetone Acetophenone bis(2-Ethylhexyl) phthalate n-Butyl alcohol Butylbenzyl phthalate Cyclohexanone o-Dichlorobenzene Diethyl phthalate Dimethyl phthalate	67-64-1 96-86-2 117-81-7 71-36-3 85-08-7 108-94-1 95-50-1 84-66-2 131-11-3	0.28 0.010 0.28 5.6 0.017 0.36 0.088 0.20 0.047	160 9.7 28 2.6 28 NA 6.0 28 28

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Common name	Regulated hazardous constituent		Wastewaters	Nonwastewaters	
			CAS ² number	Concentration ³ in mg/L; or Technology Code ⁴			
		Di-n-butyl phthalate Di-n-octyl phthalate Ethy acetate Ethylbenzene Methanol Methyl ethyl ketone Methyl isobutyl ketone Methylene chloride Naphthalene Nitrobenzene Toluene 1,1,1-Trichloroethane Trichloroethylene Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations) Chromium (Total) Cyanides (Total) ⁷ Lead	84-74-2 117-84-2 141-78-6 100-41-4 67-56-1 78-93-3 108-10-1 108-10-1 75-09-2 91-20-3 98-95-3 108-88-3 71-55-6 79-01-6 1330-20-7 7440-47-3 57-12-5 7439-92-1	0.057 0.017 0.34 0.057 5.6 0.28 0.14 0.089 0.059 0.068 0.080 0.054 0.054 0.32 2.77 1.2 0.69	28 28 33 10 NA 36 33 30 5.6 14 10 6.0 30 0.60 mg/L TCLP 590 0.75 mg/L TCLP		
K087	Decanter tank tar sludge from coking operations.	Acenaphthylene Benzene Chrysene Fluoranthene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Toluene Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations) Lead	208-96-8 71-43-2 218-01-9 206-44-0 193-39-5 91-20-3 85-01-8 108-88-3 1330-20-7 7439-92-1	0.059 0.14 0.059 0.068 0.0055 0.059 0.059 0.080 0.32 0.69	3.4 10 3.4 3.4 3.4 5.6 5.6 10 30	0.75 mg/L TCLP	
K088	Spent polluters from primary aluminum reduction.	Acenaphthene Anthracene Benz(a)anthracene Benz(a)pyrene Benz(b)fluoranthene Benz(k)fluoranthene Benz(l)phenanthrene Chrysene Dibenz(a,h)anthracene	83-32-9 120-12-7 56-55-3 50-32-8 205-98-2 207-08-9 191-24-2 218-01-9 53-70-3	0.059 0.059 0.059 0.061 0.11 0.11 0.0055 0.059 0.055	3.4 3.4 3.4 3.4 6.8 6.8 1.8 3.4 8.2		

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	Fluoranthene Indeno[1,2,3-cd]pyrene Phenanthrene Pyrene Antimony Arsenic Barium Beryllium Cadmium Chromium (Total) Lead Mercury Nickel Selenium Silver Cyanide (Total) ⁷ Cyanide (Amenable) ⁷ Fluoride	206-44-0 193-39-5 85-01-8 129-00-0 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7439-92-1 7439-97-6 7440-02-0 7782-49-2 7440-22-4 57-12-5 16984-48-8 NA	0.068 0.0055 0.059 0.067 1.9 1.4 1.2 0.82 0.69 2.77 0.69 0.15 3.98 0.82 0.43 0.86 35 NA	3.4 3.4 5.6 8.2 1.15 mg/L TCLP 21 mg/L TCLP 1.22 mg/L TCLP 0.11 mg/L TCLP 0.60 mg/L TCLP 0.75 mg/L TCLP 0.025 mg/L TCLP 11 mg/L TCLP 5.7 mg/L TCLP 0.14 mg/L TCLP 590 30
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid) Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0 85-44-9	0.055 0.055
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid) Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0 85-44-9	0.055 0.055
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	Hexachloroethane Pentachloroethane 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethylene 1,1,2-Trichloroethane Trichloroethylene	67-72-1 76-01-7 630-20-6 79-34-6 127-18-4 79-00-5 79-01-1	0.055 0.055 0.057 0.057 0.056 0.054 0.054
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	m-Dichlorobenzene Pentachloroethane 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethylene 1,2,4-Trichlorobenzene 1,1,2-Trichloroethane Trichloroethylene	541-73-1 76-01-1 630-20-6 79-34-6 127-18-4 120-82-1 79-00-5 79-01-6	0.036 0.036 0.055 0.057 0.057 0.056 0.055 0.054 0.054
K097	Vacuum stripper discharge from the chlordane clorinator in the production of chlordane.	Chlordane (alpha and gamma isomers) Heptachlor Heptachlor epoxide	57-74-9 76-44-8 1024-57-3	0.0033 0.0012 0.016

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Common name	Regulated hazardous constituent		Wastewaters	Nonwastewaters
			CAS ² number	Concentration ³ in mg/L; or Technology Code ⁴		
K098	Untreated wastewater from the production of toxaphene.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	
K099	Untreated wastewater from the production of 2,4-D.	Toxaphene 2,4-Dichlorophenoxyacetic acid HxCDDs (All Hexachlorodibenzo-p-dioxins) HxCDFs (All Hexachlorodibenzofurans) PeCDDs (All Pentachlorodibenzo-p-dioxins) PeCDFs (All Pentachlorodibenzofurans) PeCDDs (All Penta- Penta- TCDDFs (All Tetrachlorodibenzo-p-dioxins) TCDFs (All Tetrachlorodibenzofurans)	8001-35-2 94-75-7 NA NA NA NA NA NA NA	0.0095 0.72 0.000063 0.000063 0.000035 0.000063 0.000063	2.6	10 0.001 0.001 0.001 0.001 0.001 0.001
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	Cadmium Chromium (Total) Lead	7440-43-9 7440-47-3 7439-92-1	0.69 2.77 0.69	0.11 mg/L TCLP 0.60 mg/L TCLP 0.75 mg/L TCLP	
K101	Distillation tail residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitroaniline Arsenic Cadmium Lead Mercury	88-74-4 7440-38-2 7440-43-9 7439-92-1 7439-97-6	0.27 1.4 0.69 0.69 0.15	14 5.0 mg/L TCLP NA NA NA	
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitrophenol Arsenic Cadmium Lead Mercury	88-75-5 7440-38-2 7440-43-9 7439-92-1 7439-97-6	0.028 1.4 0.69 0.69 0.15	13 5.0 mg/L TCLP NA NA NA	
K103	Process residues from aniline extraction from the production of aniline.	Aniline Benzene 2,4-Dinitrophenol Nitrobenzene Phenol	62-53-3 71-43-2 51-28-5 98-95-3 108-95-2	0.81 0.14 0.12 0.068 0.039	14 10 160 14 6.2	

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K104	Combined wastewater streams generated from nitrobenzene/aniline production.	Aniline Benzene 2,4-Dinitrophenol Nitrobenzene Phenol Cyanides (Total) ⁷	62–53–3 71–43–2 51–28–5 98–95–3 108–95–2 57–12–5	0.81 0.14 0.12 0.068 0.039 1.2	14 10 160 14 6.2 590
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	Benzene Chlorobenzene 2-Chlorophenol o-Dichlorobenzene p-Dichlorobenzene Phenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	71–43–2 108–90–7 95–57–8 95–50–1 106–46–7 108–95–2 95–95–4 88–06–2	0.14 0.057 0.044 0.088 0.090 0.039 0.18 0.035	10 6.0 5.7 6.0 6.0 6.2 7.4 7.4
K106	K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439–97–6	NA	RMERC
	K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain less than 260 mg/kg total mercury that are residues from RMERC.	Mercury	7439–97–6	NA	0.20 mg/L TCLP
	Other K106 nonwastewaters that contain less than 260 mg/kg total mercury and are not residues from RMERC.	Mercury	7439–97–6	NA	0.025 mg/L TCLP
	All K106 wastewaters.	Mercury	7439–97–6	0.15	NA
K107	Column bottoms from production separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K111	Product wastewaters from the production of dinitrotoluene via nitration of toluene.	2,4-Dinitrotoluene 2,6-Dinitrotoluene	121–14–2 606–20–2	0.32 0.55	140 28

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	Concentration ³ in mg/L; or Technology Code ⁴ "mg/L TCLP"; or Technology Code ⁴
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CARBNI; or CMBST	CMBST
K114	Vicinalis from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CARBNI; or CMBST	CMBST
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	Nickel NA	7440-02-2 NA	3.98 CARBN; or CMBST	11 mg/L TCLP CMBST
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phoxygenation of toluenediamine.	NA	NA	CARBNI; or CMBST	CMBST
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane) Chloroform Ethylene dibromide (1,2-Dibromoethane)	74-83-9 67-66-3 106-93-4	0.11 0.046 0.028	15 6.0 15
K118	Spent absorbent solids from purification of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane) Chloroform Ethylene dibromide (1,2-Dibromoethane)	74-83-9 67-66-3 106-93-4	0.11 0.046 0.028	15 6.0 15
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenedithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K124	Reactor vent scrubber water from the production of ethylenedithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenedithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST

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		NA	CMBST; or CHOXD fb (B10DG or CARBN)	NA	CMBST; or CHOXD fb (B10DG or CARBN)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenbisdithiocarbamic acid and its salts.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane) Chloroform Ethylene dibromide (1,2-Dibromoethane)	74-83-9 67-66-3 106-93-4	0.11 0.46 0.028	15 6.0 15
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).	Benzene Benz(a)anthracene Benz(a)pyrene Benz(b)fluoranthene (difficult to distinguish from benz(a)k)fluoranthene) Benz(k)fluoranthene (difficult to distinguish from benz(b)fluoranthene) Chrysene Dibenz(a,h)anthracene Indeno(1,2,3-cd)pyrene	71-43-2 56-55-3 50-2-8 205-99-2 207-08-9 218-01-9 53-70-3 193-39-5	0.14 0.059 0.061 0.11 0.11 0.059 0.055 0.0055	10 3.4 3.4 6.8 6.8 3.4 8.2 3.4
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	Benzene Benz(a)anthracene Benz(a)pyrene Benz(b)fluoranthene (difficult to distinguish from benz(a)k)fluoranthene) Benz(k)fluoranthene (difficult to distinguish from benz(b)fluoranthene) Chrysene Dibenz(a,h)anthracene Indeno(1,2,3-cd)pyrene	71-43-2 56-55-3 50-22-8 205-99-2 207-08-9 218-01-9 53-70-3 193-39-5	0.14 0.059 0.061 0.11 0.11 0.059 0.055 0.0055	10 3.4 3.4 6.8 6.8 3.4 8.2 3.4
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	Benzene Benz(a)anthracene Benz(a)pyrene Benz(b)fluoranthene (difficult to distinguish from benz(a)k)fluoranthene) Benz(k)fluoranthene (difficult to distinguish from benz(b)fluoranthene) Chrysene	71-43-2 56-55-3 50-32-8 205-99-2 207-08-9 218-01-9	0.14 0.059 0.061 0.11 0.11 0.059	10 3.4 3.4 6.8 6.8 3.4
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or containing sump sludges from the recovery of coke by-products produced from coal.	Benzene Benz(a)pyrene Benz(a)anthracene	71-43-2 56-55-3 50-32-8	0.14 0.059 0.061	10 3.4 3.4

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Common name	CAS ² number	Regulated hazardous constituent		Wastewaters	Nonwastewaters
				Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted "mg/L TCLP"; or Technology Code ⁴		
		Benz(b)fluoranthene (difficult to distinguish from benz(k)fluoranthene) Benz(k)fluoranthene (difficult to distinguish from benz(b)fluoranthene) Chrysene Dibenz(a,h)anthracene	205-99-2 207-08-9 218-01-9 53-70-3	0.11 0.11 0.059 0.055	6.8 6.8 3.4 8.2		
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	Benzene Benz(a)anthracene Benz(a)pyrene Chrysene Dibenz(a,h)anthracene Naphthalene	71-43-2 56-55-3 50-32-8 218-01-9 53-70-3 91-20-3	0.14 0.059 0.061 0.059 0.055 0.059	10 3.4 3.4 3.4 8.2 5.6		
K147	Tar storage tank residues from coal tar refining.	Benzene Benz(a)anthracene Benz(a)pyrene Benz(b)fluoranthene (difficult to distinguish from benz(k)fluoranthene) Benz(k)fluoranthene (difficult to distinguish from benz(b)fluoranthene) Chrysene Dibenz(a,h)anthracene Indeno(1,2,3-cd)pyrene	71-43-2 56-55-3 50-32-8 205-99-2 207-08-9 218-01-9 53-70-3 193-39-5	0.14 0.059 0.061 0.11 0.11 0.059 0.055 0.0055	10 3.4 3.4 6.8 6.8 3.4 8.2 3.4		
K148	Residues from coal tar distillation, including, but not limited to, still bottoms.	Benz(a)anthracene Benz(a)pyrene Benz(b)fluoranthene (difficult to distinguish from benz(k)fluoranthene) Benz(k)fluoranthene (difficult to distinguish from benz(b)fluoranthene) Chrysene Dibenz(a,h)anthracene Indeno(1,2,3-cd)pyrene	56-55-3 50-32-8 205-99-2 207-08-9 218-01-9 53-70-3 193-39-5	0.059 0.061 0.11 0.11 0.059 0.055 0.0055	3.4 3.4 6.8 6.8 3.4 8.2 3.4		
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillations of benzyl chloride.)	Chlorobenzene Chloroform Chloromethane p-Dichlorobenzene Hexachlorobenzene	108-90-7 67-66-3 74-87-3 106-46-7 118-74-1	0.057 0.046 0.19 0.090 0.055	6.0 6.0 30 6.0 10		

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	Pentachlorobenzene 1,2,4,5-Tetrachlorobenzene Toluene	608-93-5 95-94-3 108-88-3	0.055 0.055 0.080	10 14 10
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	Carbon tetrachloride Chloroform Chloromethane p-Dichlorobenzene Hexachlorobenzene Pentachlorobenzene 1,2,4,5-Tetrachlorobenzene 1,1,2,2-Tetrachloroethane Tetrachloroethylene 1,2,4-Trichlorobenzene	56-23-5 67-66-3 74-87-3 106-46-7 118-74-1 608-93-5 95-94-3 79-34-5 127-18-4 120-82-1	0.057 0.046 0.019 0.090 0.055 0.055 0.055 0.057 0.056 0.055
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- or (methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	Benzene Carbon tetrachloride Chloroform Hexachlorobenzene Pentachlorobenzene 1,2,4,5-Tetrachlorobenzene Tetrachloroethylene Toluene	71-43-2 56-23-5 67-66-3 118-74-1 608-93-5 95-94-3 127-18-4 108-88-3	0.14 0.057 0.046 0.055 0.055 0.055 0.056 0.080
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes	Acetonitrile Acetophenone Aniline Benzonyl ¹⁰ Benzene Carbazidim ¹⁰ Carbofuran ¹⁰ Carbosulfan ¹⁰ Chlorobenzene Chloroform o-Dichlorobenzene	75-05-8 98-86-2 62-53-3 17804-35-2 71-43-2 63-25-2 10605-21-7 1563-66-2 55285-14-8 108-90-7 67-66-3 95-50-1	5.6 0.010 0.81 0.056; or CMEST, CHOXD, BIODG or CARBN 0.14 0.006; or CMEST, CHOXD, BIODG or CARBN 0.056; or CMEST, CHOXD, BIODG or CARBN 0.14; or CMEST CHOXD, BIODG or CARBN 0.028; or CMEST, CHOXD, BIODG or CARBN 0.057 0.046 0.088

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Common name	Regulated hazardous constituent	CAS ² number	Concentration ³ in mg/L; or Technology Code ⁴	Wastewaters	Nonwastewaters	
							mg/L or CMBST	mg/L or CMBST
		Methomyl ¹⁰	16752-77-5	0.028; or CMBST, CHOxD, BIODG or CARBN	0.089	0.14; or CMBST		
		Methylene chloride	75-09-2		0.28		30	
		Methyl ethyl ketone	78-93-3				36	
		Naphthalene	91-20-3		0.059		5.6	
		Phenol	108-95-2		0.039		6.2	
		Pyridine	110-86-1		0.014		16	
		Toluene	108-88-3		0.080		10	
		Triethylamine	121-44-8		0.081; or CMBST, CHOxD, BIODG or CARBN		1.5; or CMBST	
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes	Carbon tetrachloride	56-23-5		0.057		6.0	
		Chloroform	67-66-3		0.046		6.0	
		Chloromethane	74-87-3		0.19		30	
		Methomyl ¹⁰	16752-77-5	0.028; or CMBST, CHOxD, BIODG or CARBN	0.089	0.14; or CMBST		
		Methylene chloride	75-09-2		0.28		30	
		Methylethyl ketone	78-93-3				36	
		Pyridine	110-86-1		0.014		16	
		Triethylamine	121-44-8		0.081 or CMBST, CHOxD, BIODG or CARBN		1.5; or CMBST	
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes	Benzene	71-43-2		0.14		10	
		Carbenzadim ¹⁰	10605-21-7		0.056; or CMBST, CHOxD, BIODG or CARBN		1.4; or CMBST	
		Carbofuran ¹⁰	1563-66-2		0.006; or CMBST, CHOxD, BIODG or CARBN		0.14; or CMBST	
		Carbosulfan ¹⁰	55285-14-8		0.028; or CMBST, CHOxD, BIODG or CARBN		1.4; or CMBST	
		Chloroform	67-66-3		0.046		6.0	
		Methylene chloride	75-09-2		0.089		30	

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<p>K159 Organics from the treatment of thiocarbamate wastes</p> <table border="1"> <tr> <td>Phenol</td><td>109-95-2</td><td>0.039</td><td>6.2</td></tr> <tr> <td>Benzene</td><td>71-43-2</td><td>0.14</td><td>10</td></tr> <tr> <td>Butylate¹⁰</td><td>2008-41-5</td><td>0.042; or CMBST, CHOXD, BIODG or CARBN</td><td>1.4; or CMBST</td></tr> <tr> <td>EPTC (Eptiam)¹⁰</td><td>759-94-4</td><td>0.042; or CMBST, CHOXD, BIODG or CARBN</td><td>1.4; or CMBST</td></tr> <tr> <td>Molinate¹⁰</td><td>2212-67-1</td><td>0.042; or CMBST, CHOXD, BIODG or CARBN</td><td>1.4; or CMBST</td></tr> <tr> <td>Pebulate¹⁰</td><td>1114-71-2</td><td>0.042; or CMBST, CHOXD, BIODG or CARBN</td><td>1.4; or CMBST</td></tr> <tr> <td>Vermolate¹⁰</td><td>1929-77-7</td><td>0.042; or CMBST, CHOXD, BIODG or CARBN</td><td>1.4; or CMBST</td></tr> <tr> <td>Antimony</td><td>7440-36-0</td><td>1.9</td><td>1.15 mg/L TCLP</td></tr> <tr> <td>Arsenic</td><td>7440-38-2</td><td>1.4</td><td>5.0 mg/L TCLP</td></tr> <tr> <td>Carbon disulfide</td><td>75-15-0</td><td>3.8</td><td>4.8 mg/L TCLP</td></tr> <tr> <td>Dithiocarbamates (total)¹⁰</td><td>NA</td><td>0.028; or CMBST, CHOXD, BIODG or CARBN</td><td>28; or CMBST</td></tr> <tr> <td>Lead</td><td>7439-92-1</td><td>0.69</td><td>0.75 mg/L TCLP</td></tr> <tr> <td>Nickel</td><td>7440-02-0</td><td>3.98</td><td>11.0 mg/L TCLP</td></tr> <tr> <td>Selenium</td><td>7782-49-2</td><td>0.82</td><td>5.7 mg/L TCLP</td></tr> <tr> <td>Benz(a)anthracene</td><td>56-55-3</td><td>0.059</td><td>3.4</td></tr> <tr> <td>Benzene</td><td>71-43-2</td><td>0.14</td><td>10</td></tr> <tr> <td>Benzog(h,i)perylene</td><td>191-24-2</td><td>0.0055</td><td>1.8</td></tr> <tr> <td>Chrysene</td><td>218-01-9</td><td>0.059</td><td>3.4</td></tr> <tr> <td>Ethyl benzene</td><td>100-41-4</td><td>0.057</td><td>10</td></tr> <tr> <td>Fluorene</td><td>86-73-7</td><td>0.059</td><td>3.4</td></tr> <tr> <td>Naphthalene</td><td>91-20-3</td><td>0.059</td><td>5.6</td></tr> <tr> <td>Phenanthrene</td><td>81-05-8</td><td>0.059</td><td>5.6</td></tr> <tr> <td>Pyrene</td><td>129-00-0</td><td>0.067</td><td>8.2</td></tr> <tr> <td>Toluene (Methyl Benzene)</td><td>108-88-3</td><td>0.080</td><td>10</td></tr> <tr> <td>Xylene(s) (Total)</td><td>1330-20-7</td><td>0.32</td><td>30</td></tr> </table>	Phenol	109-95-2	0.039	6.2	Benzene	71-43-2	0.14	10	Butylate ¹⁰	2008-41-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST	EPTC (Eptiam) ¹⁰	759-94-4	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST	Molinate ¹⁰	2212-67-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST	Pebulate ¹⁰	1114-71-2	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST	Vermolate ¹⁰	1929-77-7	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST	Antimony	7440-36-0	1.9	1.15 mg/L TCLP	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP	Carbon disulfide	75-15-0	3.8	4.8 mg/L TCLP	Dithiocarbamates (total) ¹⁰	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST	Lead	7439-92-1	0.69	0.75 mg/L TCLP	Nickel	7440-02-0	3.98	11.0 mg/L TCLP	Selenium	7782-49-2	0.82	5.7 mg/L TCLP	Benz(a)anthracene	56-55-3	0.059	3.4	Benzene	71-43-2	0.14	10	Benzog(h,i)perylene	191-24-2	0.0055	1.8	Chrysene	218-01-9	0.059	3.4	Ethyl benzene	100-41-4	0.057	10	Fluorene	86-73-7	0.059	3.4	Naphthalene	91-20-3	0.059	5.6	Phenanthrene	81-05-8	0.059	5.6	Pyrene	129-00-0	0.067	8.2	Toluene (Methyl Benzene)	108-88-3	0.080	10	Xylene(s) (Total)	1330-20-7	0.32	30			
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<p>K169 Crude oil tank sediment from petroleum refining operations.</p> <table border="1"> <tr> <td>Benz(a)anthracene</td> <td>56-55-3</td> <td>0.059</td> <td>3.4</td> </tr> <tr> <td>Benzene</td> <td>71-43-2</td> <td>0.14</td> <td>10</td> </tr> <tr> <td>Benzog(h,i)perylene</td> <td>191-24-2</td> <td>0.0055</td> <td>1.8</td> </tr> <tr> <td>Chrysene</td> <td>218-01-9</td> <td>0.059</td> <td>3.4</td> </tr> <tr> <td>Dibenz(a,h)anthracene</td> <td>53-70-3</td> <td>0.055</td> <td>8.2</td> </tr> <tr> <td>Ethyl benzene</td> <td>100-41-4</td> <td>0.057</td> <td>10</td> </tr> <tr> <td>Fluorene</td> <td>86-73-7</td> <td>0.059</td> <td>3.4</td> </tr> <tr> <td>Indeno(1,3,4-cd)pyrene</td> <td>193-39-5</td> <td>0.0055</td> <td>3.4</td> </tr> <tr> <td>Naphthalene</td> <td>91-20-3</td> <td>0.059</td> <td>5.6</td> </tr> <tr> <td>Phenanthrene</td> <td>81-05-8</td> <td>0.059</td> <td>5.6</td> </tr> </table>	Benz(a)anthracene	56-55-3	0.059	3.4	Benzene	71-43-2	0.14	10	Benzog(h,i)perylene	191-24-2	0.0055	1.8	Chrysene	218-01-9	0.059	3.4	Dibenz(a,h)anthracene	53-70-3	0.055	8.2	Ethyl benzene	100-41-4	0.057	10	Fluorene	86-73-7	0.059	3.4	Indeno(1,3,4-cd)pyrene	193-39-5	0.0055	3.4	Naphthalene	91-20-3	0.059	5.6	Phenanthrene	81-05-8	0.059	5.6																																																															
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<p>K170 Clarified slurry oil sediment from petroleum refining operations.</p> <table border="1"> <tr> <td>Benz(a)anthracene</td> <td>56-55-3</td> <td>0.059</td> <td>3.4</td> </tr> <tr> <td>Benzene</td> <td>71-43-2</td> <td>0.14</td> <td>10</td> </tr> <tr> <td>Benzog(h,i)perylene</td> <td>191-24-2</td> <td>0.0055</td> <td>1.8</td> </tr> <tr> <td>Chrysene</td> <td>218-01-9</td> <td>0.059</td> <td>3.4</td> </tr> <tr> <td>Dibenz(a,h)anthracene</td> <td>53-70-3</td> <td>0.055</td> <td>8.2</td> </tr> <tr> <td>Ethyl benzene</td> <td>100-41-4</td> <td>0.057</td> <td>10</td> </tr> <tr> <td>Fluorene</td> <td>86-73-7</td> <td>0.059</td> <td>3.4</td> </tr> <tr> <td>Indeno(1,3,4-cd)pyrene</td> <td>193-39-5</td> <td>0.0055</td> <td>3.4</td> </tr> <tr> <td>Naphthalene</td> <td>91-20-3</td> <td>0.059</td> <td>5.6</td> </tr> <tr> <td>Phenanthrene</td> <td>81-05-8</td> <td>0.059</td> <td>5.6</td> </tr> </table>	Benz(a)anthracene	56-55-3	0.059	3.4	Benzene	71-43-2	0.14	10	Benzog(h,i)perylene	191-24-2	0.0055	1.8	Chrysene	218-01-9	0.059	3.4	Dibenz(a,h)anthracene	53-70-3	0.055	8.2	Ethyl benzene	100-41-4	0.057	10	Fluorene	86-73-7	0.059	3.4	Indeno(1,3,4-cd)pyrene	193-39-5	0.0055	3.4	Naphthalene	91-20-3	0.059	5.6	Phenanthrene	81-05-8	0.059	5.6																																																															
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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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Waste code	Waste description and treatment/Regulatory subcategory ¹	Common name	Regulated hazardous constituent		Wastewaters	Nonwastewaters
			CAS ² number	Concentration ³ in mg/L; or Technology Code ⁴		
K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	Pyrene Toluene (Methyl Benzene) Xylene(s) (Total)	129-00-0 108-88-3 1330-20-7	0.067 0.080 0.32	8.2 10 30	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
K172	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media.).	Benz(a)anthracene Benzene Chrysene Ethyl benzene Naphthalene Phenanthrene Pyrene Toluene (Methyl Benzene) Xylene(s) (Total) Arsenic Nickel Vanadium Reactive sulfides	56-55-3 71-43-2 218-01-9 100-41-4 91-20-3 81-05-8 129-00-0 108-88-3 1330-20-7 7740-38-2 7440-02-0 7440-62-2 NA	0.059 0.14 0.059 0.057 0.059 0.059 0.67 0.080 0.32 1.4 3.98 4.3 DEACT	3.4 10 3.4 10 5.6 5.6 8.2 10 30 5 mg/L TCLP 11.0 mg/L TCLP 1.6 mg/L TCLP DEACT	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer.	Benzene Ethyl benzene Toluene (Methyl Benzene) Xylene(s) (Total) Antimony Arsenic Nickel Vanadium Reactive sulfides	71-43-2 100-41-4 108-88-3 1330-20-7 7740-36-0 7740-38-2 7440-02-0 7440-62-2 NA	0.14 0.57 0.080 0.32 1.9 1.4 3.98 4.3 DEACT	10 10 10 30 1.15 mg/L TCLP 5 mg/L TCLP 11.0 mg/L TCLP 1.6 mg/L TCLP DEACT	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴

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	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) PeCDDs (All Pentachlorodibenzo- <i>p</i> -dioxins PeCDFs (All Pentachlorodibenzofurans) TCDDs (All tetrachlorodibenzo- <i>p</i> -dioxins) TCDFs (All tetrachlorodibenzofurans) Arsenic	39001–02–0 36088–22–9 30402–15–4 41903–57–5 55772–27–5 7440–36–0	0.000063 or CMBSST ¹¹ 0.000063 or CMBSST ¹¹ 0.000035 or CMBSST ¹¹ 0.000063 or CMBSST ¹¹ 0.000063 or CMBSST ¹¹ 1.4	0.0005 or CMBSST ¹¹ 0.001 or CMBSST ¹¹ 0.001 or CMBSST ¹¹ 0.001 or CMBSST ¹¹ 0.001 or CMBSST ¹¹ 5.0 mg/L TCLP
K175	Wastewater treatment sludge from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process	Mercury ¹² pH ₁₂	7438–97–6	NA NA
All K175 wastewaters	Mercury		7438–97–6	0.15 NA
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide)	Antimony Arsenic Cadmium Lead Mercury Antimony Arsenic Lead	7440–36–0 7440–38–2 7440–43–9 7439–92–1 7439–97–6 7440–36–0 7440–38–2 7439–92–1	1.9 1.4 0.69 0.69 0.15 1.9 1.4 0.69
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide)		35822–39–4	0.000035 or CMBSST ¹¹
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-lmenite process.	1,2,3,4,6,7,8-Hepatachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF) 1,2,3,4,7,8,9-Hepatachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	67562–39–4 55673–89–7	0.000035 or CMBSST ¹¹ 0.000035 or CMBSST ¹¹
	HxCDDs (All Hexachlorodibenzo- <i>p</i> -dioxins) HxCDFs (All Hexachlorodibenzo-furans)		34465–46–8 55684–94–1	0.000063 or CMBSST ¹¹ 0.000063 or CMBSST ¹¹
	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) Octachlorodibenzofuran (OCDF)		3268–87–9 39001–02–0	0.000063 or CMBSST ¹¹ 0.000063 or CMBSST ¹¹
	PeCDDs (All Pentachlorodibenzo- <i>p</i> -dioxins)		36088–22–9	0.000063 or CMBSST ¹¹

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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Waste code	Waste description and treatment/Regulatory subcategory ¹ [Note: NA means not applicable]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
		PeCDFs (All Pentachlorodibenzo-furans) TCDDs (All tetrachlorodibenzo-p-dioxins) TCDFs (All tetrachlorodibenzo-furans)	30402-15-4 41903-57-5 55722-27-5	0.00035 or CMBST ¹¹ 0.00063 or CMBST ¹¹ 0.00063 or CMBST ¹¹	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
K181	Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of section 261.32 that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis	Aniline o-Anisidine (2-methoxyaniline) 4-Chloroaniline p-Cresidine 2,4-Dimethylaniline (2,4-xylylidine) 1,2-Phenylenediamine	62-53-3 90-04-0 106-47-8 120-71-8 95-68-1 95-54-5	0.81 0.010 0.46 0.010 0.010 0.010	14 0.66 16 0.66 0.66 CMBST; or CHOXD fb (BODG or CARBN); or BIODG fb CAREN 0.010 (WETOX or CHOXD) fb CARBN; or CMBST
P001	Warfarin, & salts, when present at concentrations greater than 0.3%	1,3-Phenylenediamine Warfarin	108-45-2 81-81-2	(WETOX or CHOXD) fb	
P002	1-Acetyl-2-thiourea		591-08-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P003	Acrolein	Acrolein	107-02-8	0.29	CMBST
P004	Aldrin		309-00-2	0.021	0.066
P005	Allyl alcohol		107-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

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P006	Aluminum phosphide	Aluminum phosphide	20859-73-8	CH ₂ OxD; CHRED; or CMBST	CH ₂ OxD; CHRED; or CMBST
P007	5-Aminomethyl 3-isoxazolol	5-Aminomethyl 3-isoxazolol	2763-96-4	(WETOX or CHOxD) fb CARBN; or CMBST	CMBST
P008	4-Aminopyridine	4-Aminopyridine	504-24-5	(WETOX or CHOxD) fb CARBN; or CMBST	CMBST
P009	Ammonium picrate	Ammonium picrate	131-74-8	CH ₂ OxD; CHRED; CARBN; BIODG; or CMBST	CH ₂ OxD; CHRED; or CMBST
P010	Arsenic acid	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P011	Arsenic pentoxide	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P012	Arsenic trioxide	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P013	Barium cyanide	Barium Cyanides (Total) ⁷ Cyanides (Amenable) ⁷	7440-39-3 57-12-5 57-12-5	NA 1.2 0.86	21 mg/L TCLP 590 30
P014	Thiophenol (Benzene thiol)	Thiophenol (Benzene thiol)	108-98-5	(WETOX or CHOxD) fb CARBN; or CMBST	CMBST
P015	Beryllium dust	Beryllium	7440-41-7	RMETL; or RTHRM	RMETL; or RTHRM
P016	Dichloromethyl ether (Bis(chloromethyl)ether)	Dichloromethyl ether	542-88-1	(WETOX or CHOxD) fb CARBN; or CMBST	CMBST
P017	Bromoacetone	Bromoacetone	598-31-2	(WETOX or CHOxD) fb CARBN; or CMBST	CMBST
P018	Brucine	Brucine	357-57-3	(WETOX or CHOxD) fb CARBN; or CMBST	CMBST
P020	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
P021	Calcium cyanide	Cyanides (Total) ⁷ Cyanides (Amenable) ⁷	57-12-5 57-12-5	1.2 0.86	590 30
P022	Carbon disulfide	Carbon disulfide	75-15-0	3.8	CMBST

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[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
	Carbon disulfide; alternate ⁶ standard for nonwastewaters only	75-15-0	NA	4.8 mg/L TCLP	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
P023	Chloroacetaldehyde	Chloroacetaldehyde	107-20-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P024	p-Chloroaniline	p-Chloroaniline	106-47-8	0.46	16
P026	1-(<i>o</i> -Chlorophenyl)thiourea	1-(<i>o</i> -Chlorophenyl)thiourea	5344-82-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P027	3-Chloropropionitrile	3-Chloropropionitrile	542-76-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P028	Benzyl chloride	Benzyl chloride	100-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P029	Copper cyanide	Cyanides (Total) ⁷ Cyanides (Amenable) ⁷	57-12-5 57-12-5	1.2 0.86	590 30
P030	Cyanides (soluble salts and complexes)	Cyanides (Total) ⁷ Cyanides (Amenable) ⁷	57-12-5 57-12-5	1.2 0.86	590 30
P031	Cyanogen	Cyanogen	460-19-5	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P033	Cyanogen chloride	Cyanogen chloride	506-77-4	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P034	2-Cyclohexyl-4,6-dinitrophenol	2-Cyclohexyl-4,6-dinitrophenol	131-89-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P036	Dichlorophenylarsine	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP

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P037	Dieldrin	Dieldrin	60-57-1	0.017	0.13
P038	Diethylarsine	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P039	Disulfoton	Disulfoton	298-04-4	0.017	6.2
P040	0,0-Diethyl O-pyrazinyl phosphorothioate	0,0-Diethyl O-pyrazinyl phosphorothioate	297-97-2	CARBN; or CMBST	CMBST
P041	Diethyl-p-nitrophenyl phosphate	Diethyl-p-nitrophenyl phosphate	311-45-5	CARBN; or CMBST	CMBST
P042	Epinephrine	Epinephrine	51-43-4 (WETOX or CHOXD) fb	CARBN; or CMBST	CMBST
P043	Disopropylfluorophosphate (DFP)	Disopropylfluorophosphate (DFP)	55-91-4	CARBN; or CMBST	CMBST
P044	Dimethrate	Dimethrate	60-51-5	CARBN; or CMBST	CMBST
P045	Thiofanox	Thiofanox	39196-18-4 (WETOX or CHOXD) fb	CARBN; or CMBST	CMBST
P046	alpha, alpha-Dimethylphenethylamine	alpha, alpha-Dimethylphenethylamine	122-09-8 (WETOX or CHOXD) fb	CARBN; or CMBST	CMBST
P047	4,6-Dinitro-o-cresol	4,6-Dinitro-o-cresol	543-52-1	0.28	160
	4,6-Dinitro-o-cresol salts	NA	NA (WETOX or CHOXD) fb	CARBN; or CMBST	CMBST
P048	2,4-Dinitrophenol	2,4-Dinitrophenol	51-28-5	0.12	160
P049	Dithiobiuret	Dithiobiuret	541-53-7 (WETOX or CHOXD) fb	CARBN; or CMBST	CMBST
P050	Endosulfan	Endosulfan I Endosulfan II Endosulfan sulfate	939-98-8 332-13-6-5 1031-07-8	0.023 0.029 0.029	0.066 0.13 0.13
P051	Endrin	Endrin Endrin aldehyde	72-20-8 7421-93-4	0.0028 0.025	0.13 0.13
P054	Aziridine	Aziridine	151-56-4 (WETOX or CHOXD) fb	CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued
 [Note: NA means not applicable]

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Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
P056	Fluorine	Fluoride (measured in wastewaters only)	16934-48-8	35	ADGAS fb NEUTR
P057	Fluoroacetamide	Fluoroacetamide	640-19-7	(WE TOX or CHO XD) fb CARBN; or CMBST	CMBST
P058	Fluoroacetic acid, sodium salt	Fluoroacetic acid, sodium salt	62-74-8	(WE TOX or CHO XD) fb CARBN; or CMBST	CMBST
P059	Heptachlor	Heptachlor Heptachlor epoxide	1024-57-3	0.0012 0.016	0.066 0.066
P060	Isodrin	Isodrin	465-73-6	0.021	0.066
P062	Hexaethyl tetraphosphate	Hexaethyl tetraphosphate	757-58-4	CARBN; or CMBST	CMBST
P063	Hydrogen cyanide	Cyanides (Total) ⁷ Cyanides (Amenable) ⁷	57-12-5 57-12-5	1.2 0.86	590 30
P064	Isocyanic acid, ethyl ester	Isocyanic acid, ethyl ester	624-83-9	(WE TOX or CHO XD) fb CARBN; or CMBST	CMBST
P065	Mercury fulminate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.	Mercury	7439-97-6	NA	IMERC
	Mercury fulminate nonwastewaters that are either incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	Mercury fulminate nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
	Mercury fulminate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.025 mg/L TCLP
	All mercury fulminate wastewaters.	Mercury	7439-97-6	0.15	NA

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P066	Methomyl	Methomyl	16752-77-5 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P067	2-Methyl-aziridine	2-Methyl-aziridine	75-55-8 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P068	Methyl hydrazine	Methyl hydrazine	60-34-4 CHOXD; CHRED; CARBN; IODG; or CMBST	CHOXD; CHRED; or CMBST
P069	2-Methylacetonitrile	2-Methylacetonitrile	75-86-5 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P070	Aldicarb	Aldicarb	116-06-3 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P071	Methyl parathion	Methyl parathion	298-00-0 86-88-4 (WETOX or CHOXD) fb CARBN; or CMBST	4.6 CMBST
P072	1-Naphthyl-2-thiourea	1-Naphthyl-2-thiourea		
P073	Nickel carbonyl	Nickel	7440-02-0 57-12-5 7440-02-0 3.98	11 mg/L TCLP 590 30 11 mg/L TCLP CMBST
P074	Nickel cyanide	Cyanides (Total) ⁷ Cyanides (Amenable) ⁷ Nickel	57-12-5 3.98	1.2 0.86 11 mg/L TCLP CMBST
P075	Nicotine and salts	Nicotine and salts	54-11-5 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P076	Nitric oxide	Nitric oxide	10102-43-9 ADGAS	ADGAS
P077	p-Nitroaniline	p-Nitroaniline	100-01-6 0.028	28
P078	Nitrogen dioxide	Nitrogen dioxide	10102-44-0 ADGAS	ADGAS
P081	Nitroglycerin	Nitroglycerin	55-63-0 CHOXD; CHRED; CARBN; IODG; or CMBST	CHOXD; CHRED; or CMBST
P082	N-Nitrosodimethylamine	N-Nitrosodimethylamine	62-75-9 0.40	2.3

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[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
P084	N-Nitrosomethylvinylamine	N-Nitrosomethylvinylamine	4549-40-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P085	Octamethylpyrophosphoramide	Octamethylpyrophosphoramide	152-16-9	CARBN; or CMBST	CMBST
P087	Osmium tetroxide	Osmium tetroxide	20816-12-0	RMETL; or RTHRM	RMETL; or RTHRM
P088	Endothall	Endothall	145-73-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P089	Parathion	Parathion	56-38-2	0.014	4.6
P092	Phenyl mercuric acetate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC. Phenyl mercuric acetate nonwastewaters that are either incinerator residues or are residues from RMERC, and still contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	IMERC; or RMERC
	Phenyl mercuric acetate nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	Phenyl mercuric acetate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
	All phenyl mercuric acetate wastewaters.	Mercury	7439-97-6	NA	0.025 mg/L TCLP
P093	Phenyliothiourea	Phenyliothiourea	103-85-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P094	Phorate	Phorate	298-02-2	0.021	4.6
P095	Phosgene	Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

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P096	Phosphine	Phosphine	7803-51-2	CH ₃ O ₂ D; CH ₃ RED; or CMBST	CH ₃ O ₂ D; CH ₃ RED; or CMBST
P097	Famphur	Famphur	52-85-7	0.017	15
P098	Potassium cyanide.	Cyanides (Total) ⁷ Cyanides (Amenable) ⁷	57-12-5 57-12-5	1.2 0.86	590 30
P099	Potassium silver cyanide	Cyanides (Total) ⁷ Cyanides (Amenable) ⁷ Silver	57-12-5 57-12-5 7440-22-4	1.2 0.86 0.43	590 30 0.14 mg/L TCLP
P101	Ethyl cyanide (Propanenitrile)	Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
P102	Propargyl alcohol	Propargyl alcohol	107-19-7	(WE _{TO} X or CH ₃ O ₂ D) fb CARBN; or CMBST	CMBST
P103	Selenourea	Selenium	7782-49-2	0.82	5.7 mg/L TCLP
P104	Silver cyanide	Cyanides (Total) ⁷ Cyanides (Amenable) ⁷ Silver	57-12-5 57-12-5 7440-22-4	1.2 0.86 0.43	590 30 0.14 mg/L TCLP
P105	Sodium azide	Sodium azide	26628-22-8	CH ₃ O ₂ D; CH ₃ RED; CARBN; BIODG; or CMBST	CH ₃ O ₂ D; CH ₃ RED; CARBN; BIODG; or CMBST
P106	Sodium cyanide	Cyanides (Total) ⁷ Cyanides (Amenable) ⁷	57-12-5 57-12-5	1.2 0.86	590 30
P108	Strychnine and salts	Strychnine and salts	57-24-9	(WE _{TO} X or CH ₃ O ₂ D) fb CARBN; or CMBST	CMBST
P109	Tetraethylidithiopyrophosphate	Tetraethylidithiopyrophosphate	3689-24-6	CARBN; or CMBST	CMBST
P110	Tetraethyl lead	Lead	7439-92-1	0.69	0.75 mg/L TCLP
P111	Tetraethylpyrophosphate	Tetraethylpyrophosphate	107-49-3	CARBN; or CMBST	CMBST
P112	Tetranitromethane	Tetranitromethane	509-14-8	CH ₃ O ₂ D; CH ₃ RED; CARBN; BIODG; or CMBST	CH ₃ O ₂ D; CH ₃ RED; CARBN; BIODG; or CMBST
P113	Thallium oxide	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P114	Thallium selenite	Selenium	7782-49-2	0.82	5.7 mg/L TCLP

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TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
P115	Thallium (I) sulfate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P116	Thiosemicarbazide	Thiosemicarbazide	79-19-6	(WEETOX or CHOXD) fb CARBN; or CMBST	CMBST
P118	Trichloromethanethiol	Trichloromethanethiol	75-70-7	(WEETOX or CHOXD) fb CARBN; or CMBST	CMBST
P119	Ammonium vanadate	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P120	Vanadium pentoxide	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P121	Zinc cyanide	Cyanides (Total) ⁷ Cyanides (Amerable) ⁷	57-12-5 57-12-5	1.2 0.86	590 30
P122	Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10%.	Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P123	Toxaphene	Toxaphene	8001-35-2	0.0095	2.6
P127	Carboturan ¹⁰	Carboturan	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
P128	Mexacarbato ¹⁰	Mexacarbato	315-18-4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P185	Tirpate ¹⁰	Tirpate	26419-73-8	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P188	Physostigmine salicylate ¹⁰	Physostigmine salicylate	57-64-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P189	Carbosulfan	Carbosulfan	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

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P190	Metolcarb ¹⁰	Metolcarb	1129-41-5	0.056; or CMBST, CHOxD, BIODG or CARBN	1.4; or CMBST
P191	Dimetilan ¹⁰	Dimetilan	644-64-4	0.056; or CMBST, CHOxD, BIODG or CARBN	1.4; or CMBST
P192	Isolan ¹⁰	Isolan	119-38-0	0.056; or CMBST, CHOxD, BIODG or CARBN	1.4; or CMBST
P194	Oxamyl ¹⁰	Oxamyl	23135-22-0	0.056; or CMBST, CHOxD, BIODG or CARBN	0.28; or CMBST
P196	Manganese dimethylidithiocarbamate ¹⁰	Dithiocarbamates (total)	NA	0.028; or CMBST, CHOxD, BIODG or CARBN	28; or CMBST
P197	Formparanate ¹⁰	Formparanate	17702-57-7	0.056; or CMBST, CHOxD, BIODG or CARBN	1.4; or CMBST
P198	Formetanate hydrochloride ¹⁰	Formetanate hydrochloride	23422-53-9	0.056; or CMBST, CHOxD, BIODG or CARBN	1.4; or CMBST
P199	Methiocarb ¹⁰	Methiocarb	2032-65-7	0.056; or CMBST, CHOxD, BIODG or CARBN	1.4; or CMBST
P201	Promecarb ¹⁰	Promecarb	2631-37-0	0.056; or CMBST, CHOxD, BIODG or CARBN	1.4; or CMBST
P202	m-Cumetyl methylcarbamate ¹⁰	m-Cumetyl methyl carbamate	64-00-6	0.056; or CMBST, CHOxD, BIODG or CARBN	1.4; or CMBST
P203	Aldicarb sulfone ¹⁰	Aldicarb sulfone	1646-88-4	0.056; or CMBST, CHOxD, BIODG or CARBN	0.28; or CMBST
P204	Physostigmine ¹⁰	Physostigmine	57-47-6	0.056; or CMBST, CHOxD, BIODG or CARBN	1.4; or CMBST
P205	Ziram ¹⁰	Dithiocarbamates (total)	NA	0.028; or CMBST, CHOxD, BIODG or CARBN	28; or CMBST
U001	Acetaldehyde	Acetaldehyde	75-07-0	(WETOX or CHOxD) fb CARBN; or CMBST	CMBST
U002	Acetone	Acetone	67-64-1	0.28	160
U003	Acetonitrile	Acetonitrile Acetonitrile: alternate ⁶ standard for nonwastewaters only	75-05-8 75-05-8	5.6 NA	CMBST 38

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
U004	Acetophenone	Acetophenone	98–86–2	0.010	9.7
U005	2-Acetylaminofluorene	2-Acetylaminofluorene	53–96–3	0.059	140
U006	Acetyl chloride	Acetyl Chloride	75–36–5 (WETOX or CHOXD) fb CARBN; or CMBST		
U007	Acrylamide	Acrylamide	79–06–1 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U008	Acrylic acid	Acrylic acid	79–10–7 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U009	Acrylonitrile	Acrylonitrile	107–13–1	0.24	84
U010	Mitomycin C	Mitomycin C	50–07–7 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U011	Amitrole	Amitrole	61–82–5 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U012	Aniline	Aniline	62–53–3 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U014	Auramine	Auramine	492–80–8 (WETOX or CHOXD) fb CARBN; or CMBST	0.81	14
U015	Azaserine	Azaserine	115–02–6 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U016	Benz(c)acridine	Benz(c)acridine	225–51–4 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	

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U017	Benzal chloride	Benzal chloride	98–87–3 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U018	Benz(a)anthracene	Benz(a)anthracene	56–55–3	0.059 3.4
U019	Benzene	Benzene	71–43–2	0.14 10
U020	Benzenesulfonyl chloride	Benzenesulfonyl chloride	98–09–9 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U021	Benzidine	Benzidine	92–87–5 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U022	Benzo(a)pyrene	Benzo(a)pyrene	50–32–8	0.061 3.4
U023	Benzotrichloride	Benzotrichloride	98–07–7 CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOCS; CHRED; or CMBST
U024	bis(2-Chloroethoxy)methane	bis(2-Chloroethoxy)methane	111–91–1	0.036 7.2
U025	bis(2-Chloroethyl)ether	bis(2-Chloroethyl)ether	111–44–4	0.033 6.0
U026	Chromaphazine	Chromaphazine	494–03–1 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U027	bis(2-Chloroisopropyl)ether	bis(2-Chloroisopropyl)ether	39638–32–9	0.055 7.2
U028	bis(2-Ethylhexyl) phthalate	bis(2-Ethylhexyl) phthalate	117–81–7	0.28 28
U029	Methyl bromide (Bromomethane)	Methyl bromide (Bromomethane)	74–83–9	0.11 15
U030	4-Bromophenyl phenyl ether	4-Bromophenyl phenyl ether	101–55–3	0.055 15
U031	n-Butyl alcohol	n-Butyl alcohol	71–36–3	5.6 2.6
U032	Calcium chromate	Chromium (Total)	7440–47–3 Carbon oxyfluoride	2.77 0.60 mg/L TCLP CMBST
U033	Carbon oxyfluoride	Trichloroacetaldehyde (Chloral)	353–50–4 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U034	Trichloroacetaldehyde (Chloral)		75–87–6 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
U035	Chlorambucil	Chlorambucil	305-03-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U036	Chlordane	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
U037	Chlorobenzene	Chlorobenzene	108-90-7	0.057	60
U038	Chlorobenzilate	Chlorobenzilate	510-15-6	0.10	CMBST
U039	p-Chloro-m-cresol	p-Chloro-m-cresol	59-50-7	0.018	14
U041	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U042	2-Chloroethyl vinyl ether	2-Chloroethyl vinyl ether	110-75-8	0.062	CMBST
U043	Vinyl chloride	Vinyl chloride	75-01-4	0.27	6.0
U044	Chloroform	Chloroform	67-66-3	0.046	6.0
U045	Chloromethane (Methyl chloride)	Chloromethane (Methyl chloride)	74-87-3	0.19	30
U046	Chloromethyl methyl ether	Chloromethyl methyl ether	107-30-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U047	2-Chloronaphthalene	2-Chloronaphthalene	91-58-7	0.055	5.6
U048	2-Chlorophenol	2-Chlorophenol	95-57-8	0.044	5.7
U049	4-Chloro-o-toluidine hydrochloride	4-Chloro-o-toluidine hydrochloride	3165-93-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U050	Chrysene	Chrysene	218-01-9	0.059	3.4
U051	Creosote	Naphthalene	91-20-3	0.059	5.6

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	Pentachlorophenol	87–86–5	0.089	7.4
	Phenanthrene	85–01–8	0.059	5.6
	Pyrene	129–00–0	0.067	8.2
	Toluene	108–88–3	0.080	10
	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
	Lead	7439–92–1	0.69	0.75 mg/L TCLP
U052	Cresols (Cresylic acid)			
	o-Cresol (difficult to distinguish from p-cresol)	95–48–7	0.11	5.6
	m-Cresol (difficult to distinguish from p-cresol)	108–39–4	0.77	5.6
	p-Cresol (difficult to distinguish from m-cresol)	106–44–5	0.77	5.6
	Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319–77–3	0.88	11.2
U053	Crotonaldehyde	Crotonaldehyde	4170–30–3	CMBST
			(WETOX or CHOXD) fb	CMBST
			CARBN; or CMBST	
U055	Cumene	Cumene	98–82–8	CMBST
			(WETOX or CHOXD) fb	CMBST
			CARBN; or CMBST	
U056	Cyclohexane	Cyclohexane	110–82–7	CMBST
			(WETOX or CHOXD) fb	CMBST
			CARBN; or CMBST	
U057	Cyclohexanone	Cyclohexanone Cyclohexanone; alternate & standard for nonwastewaters only	108–94–1 108–94–1	0.36 NA
			(WETOX or CHOXD) fb	CMBST
			CARBN; or CMBST	
U058	Cyclophosphamide	Cyclophosphamide	50–18–0	CMBST
			(WETOX or CHOXD) fb	CMBST
			CARBN; or CMBST	
U059	Daunomycin	Daunomycin	2080–81–3	CMBST
			(WETOX or CHOXD) fb	CMBST
			CARBN; or CMBST	
U060	DDD	o,p'-DDD p,p'-DDD	53–19–0 72–54–8	0.023 0.023
			(WETOX or CHOXD) fb	CMBST
			CARBN; or CMBST	
U061	DDT	o,p'-DDT p,p'-DDT o,p'-DDD p,p'-DDD o,p'-DDE p,p'-DDE	789–02–6 50–29–3 53–19–0 72–54–8 3424–82–6 72–55–9	0.0039 0.0039 0.023 0.023 0.031 0.087
			(WETOX or CHOXD) fb	CMBST
			CARBN; or CMBST	

§ 268.40**40 CFR Ch. I (7-1-20 Edition)****TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued**

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
U062	Diallate	Diallate	2303-16-4	(WE ³ TOX or CHO ⁴ XD) fb CARBN; or CMBST	CMBST
U063	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene	53-70-3	0.055	8.2
U064	Dibenz(a,i)pyrene	Dibenz(a,i)pyrene	189-55-9	(WE ³ TOX or CHO ⁴ XD) fb CARBN; or CMBST	CMBST
U066	1,2-Dibromo-3-chloropropane	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
U067	Ethylenic dibromide (1,2-Dibromoethane)	Ethylenic dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
U068	Dibromomethane	Dibromomethane	74-95-3	0.11	15
U069	Di-n-butyl phthalate	Di-n-butyl phthalate	84-74-2	0.057	28
U070	o-Dichlorobenzene	o-Dichlorobenzene	95-50-1	0.088	6.0
U071	m-Dichlorobenzene	m-Dichlorobenzene	54-73-1	0.036	6.0
U072	p-Dichlorobenzene	p-Dichlorobenzene	106-46-7	0.090	6.0
U073	3,3'-Dichlorobenzidine	3,3'-Dichlorobenzidine	91-94-1	(WE ³ TOX or CHO ⁴ XD) fb CARBN; or CMBST	CMBST
U074	1,4-Dichloro-2-butene	cis,1,4-Dichloro-2-butene trans-1,4-Dichloro-2-butene	1476-11-5 764-41-0	(WE ³ TOX or CHO ⁴ XD) fb (WE ³ TOX or CHO ⁴ XD) fb CARBN; or CMBST CARBN; or CMBST	CMBST CMBST
U075	Dichlorodifluoromethane	Dichlorodifluoromethane	75-71-8	0.23	7.2
U076	1,1-Dichloroethane	1,1-Dichloroethane	75-34-3	0.059	6.0

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U077	1,2-Dichloroethane	1,2-Dichloroethane	107-06-2	0.21	6.0
U078	1,1-Dichloroethylene	1,1-Dichloroethylene	75-35-4	0.025	6.0
U079	1,2-Dichloroethylene	trans-1,2-Dichloroethylene	156-60-5	0.054	30
U080	Methylene chloride	Methylene chloride	75-09-2	0.089	30
U081	2,4-Dichlorophenol	2,4-Dichlorophenol	120-33-2	0.044	14
U082	2,6-Dichlorophenol	2,6-Dichlorophenol	87-65-0	0.044	14
U083	1,2-Dichloropropane	1,2-Dichloropropane	78-87-5	0.85	18
U084	1,3-Dichloropropylene	cis-1,3-Dichloropropylene trans-1,3-Dichloropropylene	10061-01-5 10061-02-6	0.036 0.036	18 18
U085	1,2,3,4-Diepoxybutane	1,2,3,4-Diepoxybutane	1464-53-5	(WETOX or CHOXD) fb	CMBST
U086	N,N-Diethylhydrazine	N,N-Diethylhydrazine	1615-80-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U087	O,O-Diethyl S-methylthiophosphate	O,O-Diethyl S-methylthiophosphate	3288-58-2	CARBN; or CMBST	CMBST
U088	Diethyl phthalate	Diethyl phthalate	84-66-2	0.20	28
U089	Diethyl stilbestrol	Diethyl stilbestrol	56-53-1	(WETOX or CHOXD) fb	CMBST
U090	Dihydrosafrole	Dihydrosafrole	94-58-6	(WETOX or CHOXD) fb	CMBST
U091	3,3'-Dimethoxybenzidine	3,3'-Dimethoxybenzidine	119-90-4	(WETOX or CHOXD) fb	CMBST
U092	Dimethylamine	Dimethylamine	124-40-3	(WETOX or CHOXD) fb	CMBST
U093	p-Dimethylaminoazobenzene	p-Dimethylaminoazobenzene	60-11-7	(WETOX or CHOXD) fb	CMBST
U094	7,12-Dimethylbenz(a)anthracene	7,12-Dimethylbenz(a)anthracene	57-97-6	(WETOX or CHOXD) fb	CMBST

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[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
U095	3,3'-Dimethylbenzidine	3,3'-Dimethylbenzidine	119-93-7	(WETOX or CHOXD) fb CARBN; or CMBST	Concentration ³ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴ CMBST
U096	alpha, alpha-Dimethyl benzyl hydroperoxide	alpha, alpha-Dimethyl benzyl hydroperoxide	80-15-9	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD, CHRED; or CMBST
U097	Dimethylcarbamoyl chloride	Dimethylcarbamoyl chloride	79-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CHOXD, CHRED; CMBST
U098	1,1-Dimethylhydrazine	1,1-Dimethylhydrazine	57-14-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U099	1,2-Dimethylhydrazine	1,2-Dimethylhydrazine	540-73-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U101	2,4-Dimethylphenol	2,4-Dimethylphenol	105-67-9	0.036	14
U102	Diethyl phthalate	Diethyl phthalate	131-11-3	0.047	28
U103	Dimethyl sulfate	Dimethyl sulfate	77-78-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD, CHRED; or CMBST
U105	2,4-Dinitrotoluene	2,4-Dinitrotoluene	121-14-2	0.32	140
U106	2,6-Dinitrotoluene	2,6-Dinitrotoluene	606-20-2	0.55	28
U107	Di-n-octyl phthalate	Di-n-octyl phthalate	117-84-0	0.017	28
U108	1,4-Dioxane	1,4-Dioxane	123-91-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
	1,4-Dioxane, alternate ⁶		123-91-1	12.0	170

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U109	1,2-Diphenylhydrazine	1,2-Diphenylhydrazine 1,2-Diphenylhydrazine; alternate ⁶ standard for wastewaters only	122-66-7 122-66-7	CHOXD; CHRED; CARBN; BIODG; or CMBST 0.087	CHOXD; CHRED; CARBN; BIODG; or CMBST NA
U110	Dipropylamine	Dipropylamine	142-84-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U111	Di-n-propylnitrosamine	Di-n-propylnitrosamine	621-64-7		
U112	Ethyl acetate	Ethyl acetate	141-78-6	0.34	14
U113	Ethyl acrylate	Ethyl acrylate	140-88-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U114	Ethylenebis(thiocarbamic acid salts and esters	Ethylenebis(thiocarbamic acid	111-54-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U115	Ethylene oxide	Ethylene oxide Ethylene oxide; alternate ⁶ standard for wastewaters only	75-21-8 75-21-8	(WETOX or CHOXD) fb CARBN; or CMBST 0.12	CHOXD; or CMBST NA
U116	Ethylene thiourea	Ethylene thiourea	96-45-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U117	Ethyl ether	Ethyl ether	60-29-7	0.12	160
U118	Ethyl methacrylate	Ethyl methacrylate	97-63-2	0.14	160
U119	Ethyl methane sulfonate	Ethyl methane sulfonate	62-50-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U120	Fluoranthene	Fluoranthene	206-44-0	0.068	3.4
U121	Trichlorofluoromethane	Trichlorofluoromethane	75-69-4	0.020	30
U122	Formaldehyde	Formaldehyde	50-00-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
U123	Formic acid	Formic acid	64-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U124	Furan	Furan	110-00-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U125	Furfural	Furfural	98-01-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U126	Glycidyaldehyde	Glycidyaldehyde	765-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U127	Hexachlorobenzene	Hexachlorobenzene	118-74-1	0.055	10
U128	Hexachlorobutadiene	Hexachlorobutadiene	87-68-3	0.055	5.6
U129	Lindane	alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	319-84-6 319-85-7 319-86-8 58-89-9	0.00014 0.00014 0.023 0.0017	0.066 0.066 0.066 0.066
U130	Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
U131	Hexachloroethane	Hexachloroethane	67-72-1	0.055	30
U132	Hexachlorophene	Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U133	Hydrazine	Hydrazine	302-01-2	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; CARBN; BIODG; or CMBST
U134	Hydrogen fluoride	Fluoride (measured in wastewaters only)	7664-39-3	35	ADGAS fb NEUTR; or NEUTR

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U135	Hydrogen Sulfide	Hydrogen Sulfide	7783-06-4	CH _{OXD} ; CHRED; or CMBST	CH _{OXD} ; CHRED; or CMBST
U136	Cacodylic acid	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
U137	Indeno[1,2,3-c,d]pyrene	Indeno[1,2,3-c,d]pyrene	193-39-5	0.0055	3.4
U138	Iodomethane	Iodomethane	74-88-4	0.19	66
U140	Isobutyl alcohol	Isobutyl alcohol	78-83-1	5.6	170
U141	Isosafrole	Isosafrole	120-56-1	0.081	2.6
U142	Kepone	Kepone	143-50-8	0.0011	0.13
U143	Lasiocarpine	Lasiocarpine	303-34-4	(WETOX or CH _{OXD}) _{fb} CARBN; or CMBST	CMBST
U144	Lead acetate	Lead	7439-92-1	0.69	0.75 mg/L TCLP
U145	Lead phosphate	Lead	7439-92-1	0.69	0.75 mg/L TCLP
U146	Lead subacetate	Lead	7439-92-1	0.69	0.75 mg/L TCLP
U147	Maleic anhydride	Maleic anhydride	108-31-6	(WETOX or CH _{OXD}) _{fb} CARBN; or CMBST	CMBST
U148	Maleic hydrazide	Maleic hydrazide	123-33-1	(WETOX or CH _{OXD}) _{fb} CARBN; or CMBST	CMBST
U149	Malononitrile	Malononitrile	109-77-3	(WETOX or CH _{OXD}) _{fb} CARBN; or CMBST	CMBST
U150	Melphalan	Melphalan	148-82-3	(WETOX or CH _{OXD}) _{fb} CARBN; or CMBST	CMBST
U151	U151 (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
	U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/L TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
All U151 (mercury) wastewaters.	Mercury	Mercury	7439-97-6	0.15	Concentration ³ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
Elemental Mercury Contaminated with Radioactive Materials	Mercury	Mercury	7439-97-6	NA	AML/GM
U152 Methacrylonitrile	Methacrylonitrile		126-98-7	0.24	84
U153 Methanethiol	Methanethiol		74-93-1	(WETOX or CHOXD) fb	CMBST
U154 Methanol	Methanol	Methanol; alternate ⁶ set of standards for both wastewaters and nonwastewaters	67-56-1 67-56-1	(WETOX or CHOXD) fb CARBN; or CMBST 5.6	CMBST 0.75 mg/L TCLP
U155 Methacrylene	Methacrylene		91-80-5	0.081	1.5
U156 Methyl chlorocarbonate	Methyl chlorocarbonate		79-22-1	(WETOX or CHOXD) fb	CMBST
U157 3-Methylcholanthrene	3-Methylcholanthrene		56-49-5	0.0055	15
U158 4,4'-Methylene bis(2-chloroaniline)	4,4'-Methylene bis(2-chloroaniline)		101-14-4	0.50	30
U159 Methyl ethyl ketone	Methyl ethyl ketone		78-93-3	0.28	36
U160 Methyl ethyl ketone peroxide	Methyl ethyl ketone peroxide		1338-23-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U161 Methyl isobutyl ketone	Methyl isobutyl ketone		106-10-1	0.14	33
U162 Methyl methacrylate	Methyl methacrylate		80-62-6	0.14	160

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U163	N-Methyl N'-nitro N-nitrosoguanidine	N-Methyl N'-nitro N-nitrosoguanidine	70-25-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U164	Methythiouracil	Methythiouracil	56-04-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U165	Naphthalene	Naphthalene	91-20-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U166	1,4-Naphthoquinone	1,4-Naphthoquinone	130-15-4	(WETOX or CHOXD) fb CARBN; or CMBST	5.6
U167	1-Naphthylamine	1-Naphthylamine	134-32-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U168	2-Naphthylamine	2-Naphthylamine	91-59-8	0.52	CMBST
U169	Nitrobenzene	Nitrobenzene	98-95-3	0.068	14
U170	p-Nitrophenol	p-Nitrophenol	100-02-7	0.12	29
U171	2-Nitropropane	2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U172	N-Nitrosodi-n-butylamine	N-Nitrosodin-n-butylamine	924-16-3	0.040	17
U173	N-Nitrosodiethanolamine	N-Nitrosodiethanolamine	1116-54-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U174	N-Nitrosodiethylamine	N-Nitrosodiethylamine	55-18-5	0.40	28
U176	N-Nitroso-N-ethylurea	N-Nitroso-N-ethylurea	759-73-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U177	N-Nitroso-N-methylurea	N-Nitroso-N-methylurea	684-93-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U178	N-Nitroso-N-methylurethane	N-Nitroso-N-methylurethane	615-53-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U179	N-Nitrosopiperidine	N-Nitrosopiperidine	100-75-4	0.013	35

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[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
U180	N-Nitrosopyrrolidine	N-Nitrosopyrrolidine	930-55-2	0.013	Concentration ³ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
U181	5-Nitro-o-toluidine	5-Nitro-o-toluidine	99-55-8	0.32	36
U182	Paraldehyde	Paraldehyde	123-63-7	(WETOX or CHOXD) fb CARBN; or CMBST	28
U183	Pentachlorobenzene	Pentachlorobenzene	608-93-5	(WETOX or CHOXD) fb CARBN; or CMBST	10
U184	Pentachloroethane	Pentachloroethane	76-01-7	(WETOX or CHOXD) fb CARBN; or CMBST	6.0
U185	Pentachloronitrobenzene	Pentachloronitrobenzene	82-68-8	(WETOX or CHOXD) fb CARBN; or CMBST	4.8
U186	1,3-Pentadiene	1,3-Pentadiene	504-60-9	(WETOX or CHOXD) fb CARBN; or CMBST	
U187	Phenacetin	Phenacetin	62-44-2	0.081	16
U188	Phenol	Phenol	108-95-2	0.039	6.2
U189	Phosphorus sulfide	Phosphorus sulfide	1314-80-3	CHOXD; CHRED; or CMBST	
U190	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid) Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0 85-44-9	0.055	28
U191	2-Picoline	2-Picoline	109-06-8	(WETOX or CHOXD) fb CARBN; or CMBST	28

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U192	Pronamide	Pronamide	23950–58–5	0.093	1.5
U193	1,3-Propane sulfone	1,3-Propane sulfone	1120–71–4 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U194	n-Propylamine	n-Propylamine	107–10–8 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U196	Pyridine	Pyridine	110–86–1	0.014	16
U197	p-Benzoylquione	p-Benzoylquione	106–51–4 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U200	Reserpine	Reserpine	50–55–5 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U201	Resorcinol	Resorcinol	108–46–3 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U203	Safrole	Safrole	94–59–7 0.081	22	
U204	Selenium dioxide	Selenium	7782–49–2 0.82	5.7 mg/L TCLP	
U205	Selenium sulfide	Selenium	7782–49–2 0.82	5.7 mg/L TCLP	
U206	Streptozotocin	Streptozotocin	18883–66–4 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U207	1,2,4,5-Tetrachlorobenzene	1,2,4,5-Tetrachlorobenzene	95–94–5 0.055	14	
U208	1,1,1,2-Tetrachloroethane	1,1,1,2-Tetrachloroethane	630–20–6 0.057	6.0	
U209	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	79–34–5 0.057	6.0	
U210	Tetrachloroethylene	Tetrachloroethylene	127–18–4 0.056	6.0	
U211	Carbon tetrachloride	Carbon tetrachloride	56–23–5 0.057	6.0	
U213	Tetrahydrofuran	Tetrahydrofuran	109–99–9 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U214	Thallium (I) acetate	Thallium (measured in wastewaters only)	7440–28–0 1.4	RTHRM; or STABL	

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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Waste code	Waste description and treatment/Regulatory subcategory ¹ [Note: NA means not applicable]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
U215	Thallium (I) carbonate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U216	Thallium (I) chloride	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U217	Thallium (I) nitrate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U218	Thioacetamide		62-55-5 (WE TOX or CHO XD) fb	CMBST	
U219	Thiourea	Thiourea	62-56-6 (WE TOX or CHO XD) fb	CMBST	
U220	Toluene	Toluene	108-88-3	0.080	10
U221	Toluenediamine	Toluenediamine	25376-45-8 CARBN; or CMBST	CMBST	
U222	o-Tolididine hydrochloride	o-Tolididine hydrochloride	636-21-5 (WE TOX or CHO XD) fb	CMBST	
U223	Toluene diisocyanate	Toluene diisocyanate	26471-62-5 CARBN; or CMBST	CMBST	
U225	Bromoform (Tribromomethane)	Bromoform (Tribromomethane)	75-25-2	0.63	15
U226	1,1,1-Trichlorethane	1,1,1-Trichlorethane	71-55-6	0.054	6.0
U227	1,1,2-Trichloroethane	1,1,2-Trichloroethane	79-00-5	0.054	6.0
U228	Trichloroethylene	Trichloroethylene	79-01-6	0.054	6.0
U234	1,3,5-Trinitrobenzene	1,3,5-Trinitrobenzene	99-35-4 (WE TOX or CHO XD) fb	CMBST	

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U235	tris-(2,3-Dibromopropyl)-phosphate	tris-(2,3-Dibromopropyl)-phosphate	126-72-7	0.11	0.10
U236	Trypan Blue	Trypan Blue	72-57-1 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U237	Uracil mustard	Uracil mustard	66-75-1 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U238	Urethane (Ethyl carbamate)	Urethane (Ethyl carbamate)	51-79-6 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U239	Xylenes	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
U240	2,4-D (2,4-Dichlorophenoxyacetic acid)	2,4-D(2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
U241	2,4-D (2,4-Dichlorophenoxyacetic acid) salts and esters		NA (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U243	Hexachloropropylene	Hexachloropropylene	188-71-7	0.035	30
U244	Thiram	Thiram	137-26-8 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U246	Cyanogen bromide	Cyanogen bromide	506-69-3 CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST	
U247	Methoxychlor	Methoxychlor	72-43-5	0.25	0.18
U248	Warfarin, & salts, when present at concentrations of 0.3% or less	Warfarin	81-81-2 (WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U249	Zinc phosphide, Zn ₃ P ₂ , when present at concentrations of 10% or less	Zinc Phosphide	1314-84-7 CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST	
U271	Benomyl ¹⁰	Benomyl	17804-35-2 CHOXD, BIODG or CARBN	0.056; or CMBST, 1.4; or CMBST	
U278	Bendiocarb ¹⁰	Bendiocarb	22781-23-3 CHOXD, BIODG or CARBN	0.056; or CMBST, 1.4; or CMBST	
U279	Carbayl ¹⁰	Carbayl	63-25-2 CHOXD, BIODG or CARBN	0.006; or CMBST, 0.14; or CMBST	

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued
 [Note: NA means not applicable]

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Waste code	Waste description and treatment/Regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS ² number		
U280	Barban ¹⁰	Barban	101-27-9	0.056; or CMBST, CHOXD, BIODG or CARBN	Concentration ³ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
U328	o-Tolidine	o-Tolidine	95-53-4	1.4; or CMBST CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	1.4; or CMBST
U353	p-Tolidine	p-Tolidine	106-49-0	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U359	2-Ethoxyethanol	2-Ethoxyethanol	110-80-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U364	Bendiocarb phenol ¹⁰	Bendiocarb phenol	22961-82-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U367	Carbofuran phenol ¹⁰	Carbofuran phenol	1563-38-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U372	Carbendazim ¹⁰	Carbendazim	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U373	Propham ¹⁰	Propham	122-42-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U387	Prosulfocarb ¹⁰	Prosulfocarb	52888-80-9	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U389	Triallate ¹⁰	Triallate	2303-17-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U394	A2213 ¹⁰	A2213	30568-43-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

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U395	Diethylene glycol, dicarbamate ¹⁰	5952-26-1	0.056; or CMBST, CHOX _D , BIODG or CARBN	1.4; or CMBST
U404	Triethylamine	121-44-8	0.081; or CMBST, CHOX _D , BIODG or CARBN	1.5; or CMBST
U409	Thiophanate-methyl	23564-05-8	0.056; or CMBST, CHOX _D , BIODG or CARBN	1.4; or CMBST
U410	Thiodicarb	59669-26-0	0.019; or CMBST, CHOX _D , BIODG or CARBN	1.4; or CMBST
U411	Propoxur	114-26-1	0.056; or CMBST, CHOX _D , BIODG or CARBN	1.4; or CMBST

§ 268.41**40 CFR Ch. I (7-1-20 Edition)****FOOTNOTES TO TREATMENT STANDARD TABLE 268.40**

- 1 The waste descriptions provided in this table do not replace waste descriptions in 40 CFR 261. Descriptions of Treatment/Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.
- 2 CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.
- 3 Concentration standards for wastewaters are expressed in mg/L and are based on analysis of composite samples.
- 4 All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in 40 CFR 268.42 Table 1—Technology Codes and Descriptions of Technology-Based Standards.
- 5 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR Part 264 Subpart O or Part 265 Subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.
- 6 [Reserved]
- 7 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
- 8 These wastes, when rendered nonhazardous and then subsequently managed in CWA, or CWA-equivalent systems are not subject to treatment standards. (See § 268.1(c)(3) and (4)).
- 9 These wastes, when rendered nonhazardous and then subsequently injected in a Class SDWA well, are not subject to treatment standards. (See § 148.1(d)).
- 10 The treatment standard for this waste may be satisfied by either meeting the constituent concentrations in this table or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at § 268.42 Table 1 of this Part, for nonwastewaters; and biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at § 268.42 Table 1 of this Part, for wastewaters.
- 11 For these wastes, the definition of CMBST is limited to: (1) combustion units operating under 40 CFR 266, (2) combustion units permitted under 40 CFR Part 264, Subpart O, or (3) combustion units operating under 40 CFR 265, Subpart O, which have obtained a determination of equivalent treatment under 268.42(b).
- 12 Disposal of K175 wastes that have complied with all applicable 40 CFR 268.40 treatment standards must also be macroencapsulated in accordance with 40 CFR 268.45 Table 1 unless the waste is placed in:
 - (1) A Subtitle C monofill containing only K175 wastes that meet all applicable 40 CFR 268.40 treatment standards; or
 - (2) A dedicated Subtitle C landfill cell in which all other wastes being co-disposed are at pH≤6.0.

[59 FR 48046, Sept. 19, 1994]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 268.40, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

§ 268.41 Treatment standards expressed as concentrations in waste extract.

For the requirements previously found in this section and for treatment standards in Table CCWE—Constituent

Concentrations in Waste Extracts, refer to § 268.40.

[59 FR 48103, Sept. 19, 1994]

Environmental Protection Agency**§ 268.42****§ 268.42 Treatment standards expressed as specified technologies.**

NOTE: For the requirements previously found in this section in Table 2—Technology-Based Standards By RCRA Waste Code, and Table 3—Technology-Based Standards for Specific Radioactive Hazardous Mixed Waste, refer to § 268.40.

(a) The following wastes in the table in § 268.40 “Treatment Standards for

Hazardous Wastes,” for which standards are expressed as a treatment method rather than a concentration level, must be treated using the technology or technologies specified in the table entitled “Technology Codes and Description of Technology-Based Standards” in this section.

TABLE 1—TECHNOLOGY CODES AND DESCRIPTION OF TECHNOLOGY-BASED STANDARDS

Technology code	Description of technology-based standards
ADGAS:	Venting of compressed gases into an absorbing or reacting media (<i>i.e.</i> , solid or liquid)—venting can be accomplished through physical release utilizing valves/piping; physical penetration of the container; and/or penetration through detonation.
AMLMG:	Amalgamation of liquid, elemental mercury contaminated with radioactive materials utilizing inorganic reagents such as copper, zinc, nickel, gold, and sulfur that result in a nonliquid, semi-solid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air.
BIODG:	Biodegradation of organics or non-metallic inorganics (<i>i.e.</i> , degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (<i>e.g.</i> , Total Organic Carbon can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues).
CARBN:	Carbon adsorption (granulated or powdered) of non-metallic inorganics, organo-metallics, and/or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough (<i>e.g.</i> , Total Organic Carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues). Breakthrough occurs when the carbon has become saturated with the constituent (or indicator parameter) and substantial change in adsorption rate associated with that constituent occurs.
CHOXD:	Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combinations of reagents: (1) Hypochlorite (<i>e.g.</i> , bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (<i>e.g.</i> , Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues). Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.
CHRED:	Chemical reduction utilizing the following reducing reagents (or waste reagents) or combinations of reagents: (1) Sulfur dioxide; (2) sodium, potassium, or alkali salts or sulfites, bisulfites, metabisulfites, and polyethylene glycols (<i>e.g.</i> , NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (<i>e.g.</i> , Total Organic Halogens can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues). Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state.
CMBST:	High temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of 40 CFR part 264, subpart O, or 40 CFR part 265, subpart O, or 40 CFR part 266, subpart H, and in other units operated in accordance with applicable technical operating requirements; and certain non-combustive technologies, such as the Catalytic Extraction Process.
DEACT:	Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity.
FSUBS:	Fuel substitution in units operated in accordance with applicable technical operating requirements.
HLVIT:	Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.
IMERC:	Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of 40 CFR part 264 subpart O and part 265 subpart O. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (<i>e.g.</i> , High or Low Mercury Subcategories).
INCIN:	Incineration in units operated in accordance with the technical operating requirements of 40 CFR part 264 subpart O and part 265 subpart O.
LLEXT:	Liquid-liquid extraction (often referred to as solvent extraction) of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and a raffinate (extracted liquid waste) proportionately low in organics that must undergo further treatment as specified in the standard.

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TABLE 1—TECHNOLOGY CODES AND DESCRIPTION OF TECHNOLOGY-BASED STANDARDS—Continued

Technology code	Description of technology-based standards
MACRO:	Macroencapsulation with surface coating materials such as polymeric organics (e.g., resins and plastics) or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to 40 CFR 260.10.
NEUTR:	Neutralization with the following reagents (or waste reagents) or combinations of reagents: (1) Acids; (2) bases; or (3) water (including wastewaters) resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals.
NLDBR:	No land disposal based on recycling.
POLYM:	Formation of complex high-molecular weight solids through polymerization of monomers in high-TOC D001 non-wastewaters which are chemical components in the manufacture of plastics.
PRECP:	Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination: (1) Lime (<i>i.e.</i> , containing oxides and/or hydroxides of calcium and/or magnesium); (2) caustic (<i>i.e.</i> , sodium and/or potassium hydroxides); (3) soda ash (<i>i.e.</i> , sodium carbonate); (4) sodium sulfide; (5) ferric sulfate or ferric chloride; (6) alum; or (7) sodium sulfate. Additional flocculating, coagulation or similar reagents/processes that enhance sludge dewatering characteristics are not precluded from use.
RBERY:	Thermal recovery of Beryllium.
RCGAS:	Recovery/reuse of compressed gases including techniques such as reprocessing of the gases for reuse/resale; filtering/adsorption of impurities; remixing for direct reuse or resale; and use of the gas as a fuel source.
RCORR:	Recovery of acids or bases utilizing one or more of the following recovery technologies: (1) Distillation (<i>i.e.</i> , thermal concentration); (2) ion exchange; (3) resin or solid adsorption; (4) reverse osmosis; and/or (5) incineration for the recovery of acid— <i>Note</i> : this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RLEAD:	Thermal recovery of lead in secondary lead smelters.
RMERC:	Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery. The retorting or roasting unit (or facility) must be subject to one or more of the following: (a) a National Emissions Standard for Hazardous Air Pollutants (NESHAP) for mercury; (b) a Best Available Control Technology (BACT) or a Lowest Achievable Emission Rate (LAER) standard for mercury imposed pursuant to a Prevention of Significant Deterioration (PSD) permit; or (c) a state permit that establishes emission limitations (within meaning of section 302 of the Clean Air Act) for mercury. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).
RMETL:	Recovery of metals or inorganics utilizing one or more of the following direct physical/removal technologies: (1) Ion exchange; (2) resin or solid (<i>i.e.</i> , zeolites) adsorption; (3) reverse osmosis; (4) chelation/solvent extraction; (5) freeze crystallization; (6) ultrafiltration and/or (7) simple precipitation (<i>i.e.</i> , crystallization)— <i>Note</i> : This does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RORGs:	Recovery of organics utilizing one or more of the following technologies: (1) Distillation; (2) thin film evaporation; (3) steam stripping; (4) carbon adsorption; (5) critical fluid extraction; (6) liquid-liquid extraction; (7) precipitation/crystallization (including freeze crystallization); or (8) chemical phase separation techniques (<i>i.e.</i> , addition of acids, bases, demulsifiers, or similar chemicals)— <i>Note</i> : this does not preclude the use of other physical phase separation techniques such as a decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RTHRM:	Thermal recovery of metals or inorganics from nonwastewaters in units identified as industrial furnaces according to 40 CFR 260.10 (1), (6), (7), (11), and (12) under the definition of “industrial furnaces”.
RZINC:	Resmelting in high temperature metal recovery units for the purpose of recovery of zinc.
STABL:	Stabilization with the following reagents (or waste reagents) or combinations of reagents: (1) Portland cement; or (2) lime/pozzolans (e.g., fly ash and cement kiln dust)—this does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic.
SSTRP:	Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as temperature and pressure ranges, have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit, such as the number of separation stages and the internal column design, thus, resulting in a condensed extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and an extracted wastewater that must undergo further treatment as specified in the standard.
VTD:	Vacuum thermal desorption of low-level radioactive hazardous mixed waste in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.
WETOX:	Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues).

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TABLE 1—TECHNOLOGY CODES AND DESCRIPTION OF TECHNOLOGY-BASED STANDARDS—Continued

Technology code	Description of technology-based standards
WTRRX:	Controlled reaction with water for highly reactive inorganic or organic chemicals with precautionary controls for protection of workers from potential violent reactions as well as precautionary controls for potential emissions of toxic/ignitable levels of gases released during the reaction.

NOTE 1: When a combination of these technologies (*i.e.*, a treatment train) is specified as a single treatment standard, the order of application is specified in § 268.42, Table 2 by indicating the five letter technology code that must be applied first, then the designation “fb.” (an abbreviation for “followed by”), then the five letter technology code for the technology that must be applied next, and so on.

NOTE 2: When more than one technology (or treatment train) are specified as *alternative* treatment standards, the five letter technology codes (or the treatment trains) are separated by a semicolon (;) with the last technology preceded by the word “OR”. This indicates that any one of these BDAT technologies or treatment trains can be used for compliance with the standard.

(b) Any person may submit an application to the Administrator demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achieved by methods specified in paragraphs (a), (c), and (d) of this section for wastes or specified in Table 1 of § 268.45 for hazardous debris. The applicant must submit information demonstrating that his treatment method is in compliance with federal, state, and local requirements and is protective of human health and the environment. On the basis of such information and any other available information, the Administrator may approve the use of the alternative treatment method if he finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in paragraphs (a), (c), and (d) of this section for wastes or in Table 1 of § 268.45 for hazardous debris. Any approval must be stated in writing and may contain such provisions and conditions as the Administrator deems appropriate. The person to whom such approval is issued must comply with all limitations contained in such a determination.

(c) As an alternative to the otherwise applicable subpart D treatment standards, lab packs are eligible for land disposal provided the following requirements are met:

(1) The lab packs comply with the applicable provisions of 40 CFR 264.316 and 40 CFR 265.316;

(2) The lab pack does not contain any of the wastes listed in Appendix IV to part 268;

(3) The lab packs are incinerated in accordance with the requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O; and

(4) Any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010, and D011 are treated in compliance with the applicable treatment standards specified for such wastes in subpart D of this part.

(d) Radioactive hazardous mixed wastes are subject to the treatment standards in § 268.40. Where treatment standards are specified for radioactive mixed wastes in the Table of Treatment Standards, those treatment standards will govern. Where there is no specific treatment standard for radioactive mixed waste, the treatment standard for the hazardous waste (as designated by EPA waste code) applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in § 268.45.

[51 FR 40642, Nov. 7, 1986, as amended at 52 FR 25790, July 8, 1987; 55 FR 22692, June 1, 1990; 56 FR 3884, Jan. 31, 1991; 57 FR 8089, Mar. 6, 1992; 57 FR 37273, Aug. 18, 1992; 58 FR 29885, May 24, 1993; 59 FR 31552, June 20, 1994; 59 FR 48103, Sept. 19, 1994; 60 FR 302, Jan. 3, 1995; 61 FR 15654, Apr. 8, 1996; 62 FR 26025, May 12, 1997; 63 FR 28738, May 26, 1998; 71 FR 40278, July 14, 2006; 73 FR 27767, May 14, 2008]

§ 268.43 Treatment standards expressed as waste concentrations.

For the requirements previously found in this section and for treatment standards in Table CCW—Constituent Concentrations in Wastes, refer to § 268.40.

[59 FR 48103, Sept. 19, 1994]

§ 268.44 Variance from a treatment standard.

(a) Based on a petition filed by a generator or treater of hazardous waste, the Administrator may approve a variance from an applicable treatment standard if:

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(1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that:

(i) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media); or

(ii) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

(b) Each petition must be submitted in accordance with the procedures in § 260.20.

(c) Each petition must include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(d) After receiving a petition for variance from a treatment standard, the Administrator may request any additional information or samples which he may require to evaluate the petition. Additional copies of the complete petition may be requested as needed to send to affected states and Regional Offices.

(e) The Administrator will give public notice in the FEDERAL REGISTER of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a variance from a treatment standard will be published in the FEDERAL REGISTER.

(f) A generator, treatment facility, or disposal facility that is managing a waste covered by a variance from the treatment standards must comply with the waste analysis requirements for restricted wastes found under § 268.7.

(g) During the petition review process, the applicant is required to comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

(h) Based on a petition filed by a generator or treater of hazardous waste, the Administrator or his or her delegated representative may approve a site-specific variance from an applicable treatment standard if:

(1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that:

(i) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media where the treatment standard is not based on combustion of such media); or

(ii) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

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(3) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (*i.e.*, lower than) the concentrations necessary to minimize short- and long-term threats to human health and the environment. Treatment variances approved under this paragraph must:

(i) At a minimum, impose alternative land disposal restriction treatment standards that, using a reasonable maximum exposure scenario:

(A) For carcinogens, achieve constituent concentrations that result in the total excess risk to an individual exposed over a lifetime generally falling within a range from 10^{-4} to 10^{-6} ; and

(B) For constituents with non-carcinogenic effects, achieve constituent concentrations that an individual could be exposed to on a daily basis without appreciable risk of deleterious effect during a lifetime.

(ii) Not consider post-land-disposal controls.

(4) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (*i.e.*, lower than) natural background concentrations at the site where the contaminated soil will land disposed.

(5) Public notice and a reasonable opportunity for public comment must be provided before granting or denying a petition.

(i) Each application for a site-specific variance from a treatment standard must include the information in § 260.20(b)(1)-(4);

(j) After receiving an application for a site-specific variance from a treatment standard, the Assistant Administrator, or his delegated representative, may request any additional information or samples which may be required to evaluate the application.

(k) A generator, treatment facility, or disposal facility that is managing a waste covered by a site-specific variance from a treatment standard must comply with the waste analysis requirements for restricted wastes found under § 268.7.

(l) During the application review process, the applicant for a site-specific variance must comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

(m) For all variances, the petitioner must also demonstrate that compliance with any given treatment variance is sufficient to minimize threats to human health and the environment posed by land disposal of the waste. In evaluating this demonstration, EPA may take into account whether a treatment variance should be approved if the subject waste is to be used in a manner constituting disposal pursuant to 40 CFR 266.20 through 266.23.

(n) [Reserved]

(o) The following facilities are excluded from the treatment standards under § 268.40, and are subject to the following constituent concentrations:

TABLE—WASTES EXCLUDED FROM THE TREATMENT STANDARDS UNDER § 268.40

Facility name ¹ and address	Waste code	See also	Regulated hazardous constituent	Wastewaters		Nonwastewaters	
				Concentration (mg/l)	Notes	Concentration (mg/kg)	Notes
Craftsman Plating and Tinning, Corp., Chicago, IL.	F006	Table CCWE in 268.40.	Cyanides (Total). Cyanides (Amenable). Cadmium Chromium Lead Nickel Arsenic	1.2 .86 1.6 .32 .040 .44 1.4	(²) (² and ³) NA NA NA NA NA	1800 30 NA NA NA NA 5.0 mg/L TCLP	(⁴) (⁴) NA NA NA NA NA
CWM Chemical Services, LLC, Model City, New York.	K088 ⁹	Standards under § 268.40.					NA

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TABLE—WASTES EXCLUDED FROM THE TREATMENT STANDARDS UNDER § 268.40—Continued

Facility name ¹ and address	Waste code	See also	Regulated hazardous constituent	Wastewaters		Nonwastewaters	
				Concentration (mg/l)	Notes	Concentration (mg/kg)	Notes
DuPont Environmental Treatment Chambers Works, Deepwater, NJ.	F039	Standards under § 268.40.	1,3-phenylene-diamine 1,3-PDA.	NA	NA	CMBST; CHOXD fb BIODG or CARBN; or BIODG fb CARBN 5.0 mg/L TCLP	(¹³)
Dupont Environmental Treatment—Chambers Works Wastewater Treatment Plant, Deepwater, NJ ⁸ .	K088	Standards under § 268.40.	Arsenic	1.4	NA		NA
EnergySolutions LLC, Clive, UT (¹⁴).	P- and U-listed hazardous waste requiring CMBST	Standards under 268.40.	NA	NA	NA	CMBST or VTD	NA
Guardian Industries Jefferson Hills, PA (6), (11), and (12).	D010 Standards under 268.40	Selenium	NA	NA	11 mg/L TCLP	NA	
Owens Brockway Glass Container Company, Vernon, CA ⁶ .	D010	Standards under § 268.40.	Selenium	NA	NA	51 mg/L TCLP	(¹⁵)
Owens Brockway Glass Container Company, Vernon, CA ⁶ .	D010	Standards under § 268.40.	Selenium	NA	NA	59 mg/L TCLP	(¹⁶)
Northwestern Plating Works, Inc., Chicago, IL.	F006	Table CCWE in 268.40.	Cyanides (Total). Cyanides (Amenable). Cadmium Chromium Lead Nickel Selenium	1.2 .86 1.6 .32 .040 .44	(² and ³) (²)	970 30 NA NA NA NA	(⁴)
St. Gobain Containers, El Monte, CA ⁵ ⁷ .	D010	Standards under § 268.40.	Arsenic	NA	NA	25 mg/L TCLP	NA
U.S. Ecology Idaho, Incorporated, Grandview, Idaho.	K088 ¹⁰	Standards under § 268.40.	Arsenic	1.4	NA	5.0 mg/L TCLP	NA

(¹)—A facility may certify compliance with these treatment standards according to provisions in 40 CFR 268.7.

(²)—Cyanide Wastewater Standards for F006 are based on analysis of composite samples.

(³)—These facilities must comply with 0.86 mg/l for amenable cyanides in the wastewater exiting the alkaline chlorination system. These facilities must also comply with 40 CFR § 268.7.a.4 for appropriate monitoring frequency consistent with the facilities' waste analysis plan.

(⁴)—Cyanide nonwastewaters are analyzed using SW-846 Method 9010C or 9012B, as incorporated by reference in § 260.11 of this chapter, sample size 10 grams, distillation time, 1 hour and 15 minutes.

(⁵)—Alternative D010 selenium standard only applies to dry scrubber solid from glass manufacturing wastes.

(⁶)—Alternative D010 selenium standard only applies to electrostatic precipitator dust generated during glass manufacturing operations.

⁷D010 wastes generated by this facility must be treated by Chemical Waste Management, Inc. at its Kettleman Hills facility in Kettleman City, California.

⁸Dupont Environmental Treatment-Chambers Works must dispose of this waste in their on-site Subtitle C hazardous waste landfill.

⁹This treatment standard applies only to K088-derived bag house dust, incinerator ash, and filtercake at this facility.

¹⁰This treatment standard applies only to K088-derived air emission control dust generated by this facility.

¹¹D010 wastes generated by this facility may be treated by Heritage Environmental Services, LLC at their RCRA permitted treatment facility in Indianapolis, Indiana or by Chemical Waste Management, Chemical Services Inc. at their RCRA permitted treatment facility in Model City, New York.

¹²D010 waste generated by this facility may be treated by Chemical Waste Management, Chemical Services, LLC. at their treatment facility in Model City, New York.

¹³This treatment standard applies to 1,3-PDA in biosludge from treatment of F039.

¹⁴This site-specific treatment variance applies only to solid treatment residue resulting from the vacuum thermal desorption (VTD) of P- and U-listed hazardous waste containing radioactive contamination ("mixed waste") at the EnergySolutions' LLC facility in Clive, Utah that otherwise requires CMBST as the LDR treatment standard. Once the P- and U-listed mixed waste are treated using VTD, the solid treatment residue can be land disposed at EnergySolutions' onsite RCRA permitted mixed waste landfill without further treatment. This treatment variance is conditioned on EnergySolutions complying with a Waste Family Demonstration Testing Plan specifically addressing the treatment of these P- and U-listed wastes, with this plan being implemented through a RCRA Part B permit modification for the VTD unit.

¹⁵This alternative standard applies only to D010 wastes generated by this facility and treated by Chemical Waste Management, Inc. at its Kettleman Hills facility in Kettleman City, California.

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¹⁶This alternative standard applies only to D010 wastes generated by this facility and treated by U.S. Ecology Nevada at its facility in Beatty, Nevada. This alternative treatment standard is conditioned on the waste-to-reagent ratio not exceeding 1 to 0.45.

NOTE: NA means Not Applicable.

[51 FR 40642, Nov. 7, 1986, as amended at 52 FR 21017, June 4, 1987; 53 FR 31221, Aug. 17, 1988; 54 FR 36972, Sept. 6, 1989; 56 FR 12355, Mar. 25, 1991; 61 FR 55727, Oct. 28, 1996; 62 FR 26025, May 12, 1997; 62 FR 64509, Dec. 5, 1997; 63 FR 28738, May 26, 1998; 64 FR 28391, May 26, 1999; 66 FR 33890, June 26, 2001; 67 FR 35928, May 22, 2002; 67 FR 36818, May 28, 2002; 69 FR 6575, Feb. 11, 2004; 69 FR 67653, Nov. 19, 2004; 70 FR 34589, June 14, 2005; 70 FR 44511, Aug. 3, 2005; 71 FR 6212, Feb. 7, 2006; 71 FR 40279, July 14, 2006; 73 FR 27767, May 14, 2008; 77 FR 50626, Aug. 22, 2012]

§ 268.45 Treatment standards for hazardous debris.

(a) *Treatment standards.* Hazardous debris must be treated prior to land disposal as follows unless EPA determines under § 261.3(f)(2) of this chapter that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in this subpart for the waste contaminating the debris:

(1) *General.* Hazardous debris must be treated for each "contaminant subject to treatment" defined by paragraph (b) of this section using the technology or technologies identified in Table 1 of this section.

(2) *Characteristic debris.* Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under §§ 261.21, 261.22, and 261.23 of this chapter, respectively, must be deactivated by treatment using one of the technologies identified in Table 1 of this section.

(3) *Mixtures of debris types.* The treatment standards of Table 1 in this section must be achieved for each type of debris contained in a mixture of debris types. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

(4) *Mixtures of contaminant types.* Debris that is contaminated with two or more contaminants subject to treatment identified under paragraph (b) of this section must be treated for each contaminant using one or more treatment technologies identified in Table 1 of this section. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

(5) *Waste PCBs.* Hazardous debris that is also a waste PCB under 40 CFR part 761 is subject to the requirements of either 40 CFR part 761 or the require-

ments of this section, whichever are more stringent.

(b) *Contaminants subject to treatment.* Hazardous debris must be treated for each "contaminant subject to treatment." The contaminants subject to treatment must be determined as follows:

(1) *Toxicity characteristic debris.* The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by § 261.24 of this chapter are those EP constituents for which the debris exhibits the TC toxicity characteristic.

(2) *Debris contaminated with listed waste.* The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under § 268.40.

(3) *Cyanide reactive debris.* Hazardous debris that is reactive because of cyanide must be treated for cyanide.

(c) *Conditioned exclusion of treated debris.* Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Table 1 of this section and that does not exhibit a characteristic of hazardous waste identified under subpart C, part 261, of this chapter after treatment is not a hazardous waste and need not be managed in a subtitle C facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 1 is a hazardous waste and must be managed in a subtitle C facility.

(d) *Treatment residuals—(1) General requirements.* Except as provided by paragraphs (d)(2) and (d)(4) of this section:

(i) Residue from the treatment of hazardous debris must be separated from the treated debris using simple physical or mechanical means; and

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(ii) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by subpart D of this part for the waste contaminating the debris.

(2) *Nontoxic debris*. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris (other than cyanide-reactive) that is not contaminated with a contaminant subject to treatment defined by paragraph (b) of this section, must be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of subpart D of this part.

(3) *Cyanide-reactive debris*. Residue from the treatment of debris that is reactive because of cyanide must meet the treatment standards for D003 in "Treatment Standards for Hazardous Wastes" at § 268.40.

(4) *Ignitable nonwastewater residue*. Ignitable nonwastewater residue containing equal to or greater than 10% total organic carbon is subject to the technology specified in the treatment standard for D001: Ignitable Liquids.

(5) *Residue from spalling*. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of this section.

TABLE 1—ALTERNATIVE TREATMENT STANDARDS FOR HAZARDOUS DEBRIS¹

Technology description	Performance and/or design and operating standard	Contaminant restrictions ²
A. Extraction Technologies:		
1. Physical Extraction		
a. <i>Abrasive Blasting</i> : Removal of contaminated debris surface layers using water and/or air pressure to propel a solid media (e.g., steel shot, aluminum oxide grit, plastic beads).	<i>Glass, Metal, Plastic, Rubber</i> : Treatment to a clean debris surface. ³ <i>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood</i> : Removal of at least 0.6 cm of the surface layer; treatment to a clean debris surface. ³	<i>All Debris</i> : None.
b. <i>Scarfication, Grinding, and Planing</i> : Process utilizing striking piston heads, saws, or rotating grinding wheels such that contaminated debris surface layers are removed.	Same as above	Same as above.
c. <i>Spalling</i> : Drilling or chipping holes at appropriate locations and depth in the contaminated debris surface and applying a tool which exerts a force on the sides of those holes such that the surface layer is removed. The surface layer removed remains hazardous debris subject to the debris treatment standards.	Same as above	Same as above.
d. <i>Vibratory Finishing</i> : Process utilizing scrubbing media, flushing fluid, and oscillating energy such that hazardous contaminants or contaminated debris surface layers are removed. ⁴	Same as above	Same as above.
e. <i>High Pressure Steam and Water Sprays</i> : Application of water or steam sprays of sufficient temperature, pressure, residence time, agitation, surfactants, and detergents to remove hazardous contaminants from debris surfaces or to remove contaminated debris surface layers.	Same as above	Same as above.
2. Chemical Extraction		
a. <i>Water Washing and Spraying</i> : Application of water sprays or water baths of sufficient temperature, pressure, residence time, agitation, surfactants, acids, bases, and detergents to remove hazardous contaminants from debris surfaces and surface pores or to remove contaminated debris surface layers.	<i>All Debris</i> : Treatment to a clean debris surface ³ ; <i>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood</i> : Debris must be no more than 1.2 cm ($\frac{1}{2}$ inch) in one dimension (i.e., thickness limit) ⁵ , except that this thickness limit may be waived under an "Equivalent Technology" approval under § 268.42(b); ⁶ debris surfaces must be in contact with water solution for at least 15 minutes	<i>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood</i> : Contaminant must be soluble to at least 5% by weight in water solution or 5% by weight in emulsion; if debris is contaminated with a dioxin-listed waste, ⁶ an "Equivalent Technology" approval under § 268.42(b) must be obtained. ⁸

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TABLE 1—ALTERNATIVE TREATMENT STANDARDS FOR HAZARDOUS DEBRIS¹—Continued

Technology description	Performance and/or design and operating standard	Contaminant restrictions ²
b. <i>Liquid Phase Solvent Extraction:</i> Removal of hazardous contaminants from debris surfaces and surface pores by applying a non-aqueous liquid or liquid solution which causes the hazardous contaminants to enter the liquid phase and be flushed away from the debris along with the liquid or liquid solution while using appropriate agitation, temperature, and residence time. ⁴	Same as above	<i>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood:</i> Same as above, except that contaminant must be soluble to at least 5% by weight in the solvent.
c. <i>Vapor Phase Solvent Extraction:</i> Application of an organic vapor using sufficient agitation, residence time, and temperature to cause hazardous contaminants on contaminated debris surfaces and surface pores to enter the vapor phase and be flushed away with the organic vapor. ⁴	Same as above, except that brick, cloth, concrete, paper, pavement, rock and wood surfaces must be in contact with the organic vapor for at least 60 minutes.	Same as above.
3. Thermal Extraction		
a. <i>High Temperature Metals Recovery:</i> Application of sufficient heat, residence time, mixing, fluxing agents, and/or carbon in a smelting, melting, or refining furnace to separate metals from debris.	For refining furnaces, treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residuals must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.	<i>Debris contaminated with a dioxin-listed waste:</i> ⁵ Obtain an “Equivalent Technology” approval under § 268.42(b). ⁸
b. <i>Thermal Desorption:</i> Heating in an enclosed chamber under either oxidizing or nonoxidizing atmospheres at sufficient temperature and residence time to vaporize hazardous contaminants from contaminated surfaces and surface pores and to remove the contaminants from the heating chamber in a gaseous exhaust gas. ⁷	<i>All Debris:</i> Obtain an “Equivalent Technology” approval under § 268.42(b); ⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. <i>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood:</i> Debris must be no more than 10 cm (4 inches) in one dimension (<i>i.e.</i> , thickness limit), ⁵ except that this thickness limit may be waived under the “Equivalent Technology” approval	<i>All Debris:</i> Metals other than mercury.
B. Destruction Technologies:		
1. <i>Biological Destruction (Biodegradation):</i> Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and biodegradation of organic or nonmetallic inorganic compounds (<i>i.e.</i> , inorganics that contain phosphorus, nitrogen, or sulfur) in units operated under either aerobic or anaerobic conditions.	<i>All Debris:</i> Obtain an “Equivalent Technology” approval under § 268.42(b); ⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. <i>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood:</i> Debris must be no more than 1.2 cm (½ inch) in one dimension (<i>i.e.</i> , thickness limit), ⁵ except that this thickness limit may be waived under the “Equivalent Technology” approval	<i>All Debris:</i> Metal contaminants.

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TABLE 1—ALTERNATIVE TREATMENT STANDARDS FOR HAZARDOUS DEBRIS¹—Continued

Technology description	Performance and/or design and operating standard	Contaminant restrictions ²
2. Chemical Destruction		
a. <i>Chemical Oxidation</i> : Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combination of reagents—(1) hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent destruction efficiency. ⁴ Chemical oxidation specifically includes what is referred to as alkaline chlorination.	<i>All Debris</i> : Obtain an “Equivalent Technology” approval under § 268.42(b); ⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. <i>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood</i> : Debris must be no more than 1.2 cm (½ inch) in one dimension (<i>i.e.</i> , thickness limit), ⁵ except that this thickness limit may be waived under the “Equivalent Technology” approval Same as above	<i>All Debris</i> : Metal contaminants.
b. <i>Chemical Reduction</i> : Chemical reaction utilizing the following reducing reagents (or waste reagents) or combination of reagents: (1) sulfur dioxide; (2) sodium, potassium, or alkali salts of sulfites, bisulfites, and metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency. ⁴		Same as above.
3. <i>Thermal Destruction</i> : Treatment in an incinerator operating in accordance with Subpart O of Parts 264 or 265 of this chapter; a boiler or industrial furnace operating in accordance with Subpart H of Part 266 of this chapter, or other thermal treatment unit operated in accordance with Subpart X, Part 264 of this chapter, or Subpart P, Part 265 of this chapter, but excluding for purposes of these debris treatment standards Thermal Desorption units.	Treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.	<i>Brick, Concrete, Glass, Metal, Pavement, Rock, Metal</i> : Metals other than mercury, except that there are no metal restrictions for vitrification. <i>Debris contaminated with a dioxin-listed waste</i> . ⁶ Obtain an “Equivalent Technology” approval under § 268.42(b), ⁸ except that this requirement does not apply to vitrification.
C. Immobilization Technologies:		
1. <i>Macroencapsulation</i> : Application of surface coating materials such as polymeric organics (e.g., resins and plastics) or use of a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media.	Encapsulating material must completely encapsulate debris and be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).	None.
2. <i>Microencapsulation</i> : Stabilization of the debris with the following reagents (or waste reagents) such that the leachability of the hazardous contaminants is reduced: (1) Portland cement; or (2) lime/pozzolans (e.g., fly ash and cement kiln dust). Reagents (e.g., iron salts, silicates, and clays) may be added to enhance the set/cure time and/or compressive strength, or to reduce the leachability of the hazardous constituents. ⁵	Leachability of the hazardous contaminants must be reduced.	None.

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Technology description	Performance and/or design and operating standard	Contaminant restrictions ²
3. <i>Sealing:</i> Application of an appropriate material which adheres tightly to the debris surface to avoid exposure of the surface to potential leaching media. When necessary to effectively seal the surface, sealing entails pretreatment of the debris surface to remove foreign matter and to clean and roughen the surface. Sealing materials include epoxy, silicone, and urethane compounds, but paint may not be used as a sealant.	Sealing must avoid exposure of the debris surface to potential leaching media and sealant must be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).	None.

¹Hazardous debris must be treated by either these standards or the waste-specific treatment standards for the waste contaminating the debris. The treatment standards must be met for each type of debris contained in a mixture of debris types, unless the debris is converted into treatment residue as a result of the treatment process. Debris treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

²Contaminant restriction means that the technology is not BDAT for that contaminant. If debris containing a restricted contaminant is treated by the technology, the contaminant must be subsequently treated by a technology for which it is not restricted in order to be land disposed (and excluded from Subtitle C regulation).

³"Clean debris surface" means the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area.

⁴Acids, solvents, and chemical reagents may react with some debris and contaminants to form hazardous compounds. For example, acid washing of cyanide-contaminated debris could result in the formation of hydrogen cyanide. Some acids may also react violently with some debris and contaminants, depending on the concentration of the acid and the type of debris and contaminants. Debris treaters should refer to the safety precautions specified in Material Safety Data Sheets for various acids to avoid applying an incompatible acid to a particular debris/contaminant combination. For example, concentrated sulfuric acid may react violently with certain organic compounds, such as acrylonitrile.

⁵If reducing the particle size of debris to meet the treatment standards results in material that no longer meets the 60 mm maximum particle size limit for debris, such material is subject to the waste-specific treatment standards for the waste contaminating the material, unless the debris has been cleaned and separated from contaminated soil and waste prior to size reduction. At a minimum, simple physical or mechanical means must be used to provide such cleaning and separation of nondebris materials to ensure that the debris surface is free of caked soil, waste, or other nondebris material.

⁶Dioxin-listed wastes are EPA Hazardous Waste numbers FO20, FO21, FO22, FO23, FO26, and FO27.

⁷Thermal desorption is distinguished from Thermal Destruction in that the primary purpose of Thermal Desorption is to volatilize contaminants and to remove them from the treatment chamber for subsequent destruction or other treatment.

⁸The demonstration "Equivalent Technology" under § 268.42(b) must document that the technology treats contaminants subject to treatment to a level equivalent to that required by the performance and design and operating standards for other technologies in this table such that residual levels of hazardous contaminants will not pose a hazard to human health and the environment absent management controls.

⁹Any soil, waste, and other nondebris material that remains on the debris surface (or remains mixed with the debris) after treatment is considered a treatment residual that must be separated from the debris using, at a minimum, simple physical or mechanical means. Examples of simple physical or mechanical means are vibratory or trommel screening or water washing. The debris surface need not be cleaned to a "clean debris surface" as defined in note 3 when separating treated debris from residue; rather, the surface must be free of caked soil, waste, or other nondebris material. Treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

[57 FR 37277, Aug. 18, 1992, as amended at 59 FR 48103, Sept. 19, 1994; 63 FR 28738, May 26, 1998; 71 FR 40279, July 14, 2006]

§ 268.46 Alternative treatment standards based on HTMR.

For the treatment standards previously found in this section, refer to § 268.40.

[59 FR 48103, Sept. 19, 1994]

§ 268.48 Universal treatment standards.

(a) Table UTS identifies the hazardous constituents, along with the

nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in § 268.2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.

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[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard	Nonwastewater standard
		Concentration ² in mg/l	Concentration ³ in mg/kg unless noted as "mg/l TCLP"
<i>Organic Constituents</i>			
Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
2-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
Acrylamide	79-06-1	19	23
Acrylonitrile	107-13-1	0.24	84
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
alpha-BHC	319-84-6	0.00014	0.066
beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066
gamma-BHC	58-89-9	0.0017	0.066
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Bromomethane/Methyl bromide	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitrophenol/Dinoseb	88-85-7	0.066	2.5
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP

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[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard	Nonwastewater standard
		Concentration ² in mg/l	Concentration ³ in mg/kg unless noted as "mg/l TCLP"
Carbon tetrachloride	56-23-5	0.057	6.0
Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
Chloromethane/Methyl chloride	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
p-Cresidine	120-71-8	0.010	0.66
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
Dibenzo(a,h)anthracene	53-70-3	0.055	8.2
Dibenzo(a,e)pyrene	192-65-4	0.061	NA
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
1,2-Dibromoethane/Ethylene dibromide	106-93-4	0.028	15

§ 268.48**40 CFR Ch. I (7-1-20 Edition)****UNIVERSAL TREATMENT STANDARDS—Continued**

[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard	Nonwastewater standard
		Concentration ² in mg/l	Concentration ³ in mg/kg unless noted as "mg/l TCLP"
Dibromomethane	74-95-3	0.11	15
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
2,4-Dichlorophenoxyacetic acid/2,4-D	94-75-7	0.72	10
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethyl phthalate	84-66-2	0.20	28
p-Dimethylaminoazobenzene	60-11-7	0.13	NA
2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
2,4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl phthalate	117-84-0	0.017	28
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
1,2-Diphenylhydrazine	122-66-7	0.087	NA
Disulfoton	298-04-4	0.017	6.2

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[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard	Nonwastewater standard
		Concentration ² in mg/l	Concentration ³ in mg/kg unless noted as "mg/l TCLP"
Endosulfan I	959-98-8	0.023	0.066
Endosulfan II	33213-65-9	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
Ethyl cyanide/Propanenitrile	107-12-0	0.24	360
Ethyl ether	60-29-7	0.12	160
bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
Ethylene oxide	75-21-8	0.12	NA
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035	.0025
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035	.0025
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035	.0025
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno(1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-0	0.0011	0.13
Methacrylonitrile	126-98-7	0.24	84

§ 268.48**40 CFR Ch. I (7-1-20 Edition)****UNIVERSAL TREATMENT STANDARDS—Continued**

[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard	Nonwastewater standard
		Concentration ² in mg/l	Concentration ³ in mg/kg unless noted as "mg/l TCLP"
Methanol	67-56-1	5.6	0.75 mg/l TCLP
Methaprylene	91-80-5	0.081	1.5
Methoxychlor	72-43-5	0.25	0.18
3-Methylcholanthrene	56-49-5	0.0055	15
4,4-Methylene bis(2-chloroaniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methyl methacrylate	80-62-6	0.14	160
Methyl methanesulfonate	66-27-3	0.018	NA
Methyl parathion	298-00-0	0.014	4.6
Naphthalene	91-20-3	0.059	5.6
2-Naphthylamine	91-59-8	0.52	NA
o-Nitroaniline	88-74-4	0.27	14
p-Nitroaniline	100-01-6	0.028	28
Nitrobenzene	98-95-3	0.068	14
5-Nitro-o-toluidine	99-55-8	0.32	28
o-Nitrophenol	88-75-5	0.028	13
p-Nitrophenol	100-02-7	0.12	29
N-Nitrosodiethylamine	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	2.3
N-Nitroso-di-n-butylamine	924-16-3	0.40	17
N-Nitrosomethylmethylenamine	10595-95-6	0.40	2.3
N-Nitrosomorpholine	59-89-2	0.40	2.3
N-Nitrosopiperidine	100-75-4	0.013	35
N-Nitrosopyrrolidine	930-55-2	0.013	35
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063	0.005
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063	0.005
Parathion	56-38-2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors) ⁸	1336-36-3	0.10	10
Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
Pentachloroethane	76-01-7	0.055	6.0

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[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard	Nonwastewater standard
		Concentration ² in mg/l	Concentration ³ in mg/kg unless noted as "mg/l TCLP"
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
1,3-Phenylenediamine Phorate	108-45-2 298-02-2	0.010 0.021	0.66 4.6
Phthalic acid	100-21-0	0.055	28
Phthalic anhydride	85-44-9	0.055	28
Pronamide	23950-58-5	0.093	1.5
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex/2,4,5-TP	93-72-1	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Tribromomethane/Bromoform	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichlorofluoromethane	75-69-4	0.020	30
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T	93-76-5	0.72	7.9
1,2,3-Trichloropropane	96-18-4	0.85	30
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30

§ 268.48**40 CFR Ch. I (7-1-20 Edition)****UNIVERSAL TREATMENT STANDARDS—Continued**

[Note: NA means not applicable]

Regulated constituent common name	CAS ¹ number	Wastewater standard	Nonwastewater standard
		Concentration ² in mg/l	Concentration ³ in mg/kg unless noted as "mg/l TCLP"
tris-(2,3-Dibromopropyl) phosphate	126-72-7	0.11	0.10
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
<i>Inorganic Constituents</i>			
Antimony	7440-36-0	1.9	1.15 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	21 mg/l TCLP
Beryllium	7440-41-7	0.82	1.22 mg/l TCLP
Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) ⁴	57-12-5	1.2	590
Cyanides (Amenable) ⁴	57-12-5	0.86	30
Fluoride ⁵	16984-48-8	35	NA
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Mercury—Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury—All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Selenium ⁷	7782-49-2	0.82	5.7 mg/l TCLP
Silver	7440-22-4	0.43	0.14 mg/l TCLP
Sulfide ⁵	18496-25-8	14	NA
Thallium	7440-28-0	1.4	0.20 mg/l TCLP
Vanadium ⁵	7440-62-2	4.3	1.6 mg/l TCLP
Zinc ⁵	7440-66-6	2.61	4.3 mg/l TCLP

FOOTNOTES TO TABLE UTS

- 1 CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.
- 2 Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.
- 3 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

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FOOTNOTES TO TABLE UTS—Continued

- 4 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
- 5 These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at § 268.2(i).
- 6 [Reserved]
- 7 This constituent is not an underlying hazardous constituent as defined at § 268.2(i) of this Part because its UTS level is greater than its TC level, thus a treatment selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.
- 8 This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004–D011 only.

[59 FR 48103, Sept. 19, 1994, as amended at 60 FR 302, Jan. 3, 1995; 61 FR 15654, Apr. 8, 1996; 61 FR 33690, June 28, 1996; 62 FR 7596, Feb. 19, 1997; 63 FR 24626, May 4, 1998; 63 FR 28739, May 26, 1998; 63 FR 47417, Sept. 4, 1998; 64 FR 25417, May 11, 1999; 65 FR 14475, Mar. 17, 2000; 70 FR 34590, June 14, 2005; 70 FR 9178, Feb. 24, 2005; 71 FR 40279, July 14, 2006; 75 FR 13008, Mar. 18, 2010; 76 FR 34156, June 18, 2011]

§ 268.49 Alternative LDR treatment standards for contaminated soil.

(a) *Applicability.* You must comply with LDRs prior to placing soil that exhibits a characteristic of hazardous waste, or exhibited a characteristic of

hazardous waste at the time it was generated, into a land disposal unit. The following chart describes whether you must comply with LDRs prior to placing soil contaminated by listed hazardous waste into a land disposal unit:

If LDRs	And if LDRs	And if	Then you
Applied to the listed waste when it contaminated the soil*.	Apply to the listed waste now.	Must comply with LDRs
Didn't apply to the listed waste when it contaminated the soil*.	Apply to the listed waste now.	The soil is determined to contain the listed waste when the soil is first generated.	Must comply with LDRs.
Didn't apply to the listed waste when it contaminated the soil*.	Apply to the listed waste now.	The soil is determined not to contain the listed waste when the soil is first generated.	Needn't comply with LDRs.
Didn't apply to the listed waste when it contaminated the soil*.	Don't apply to the listed waste now.	Needn't comply with LDRs.

*For dates of LDR applicability, see 40 CFR Part 268 Appendix VII. To determine the date any given listed hazardous waste contaminated any given volume of soil, use the last date any given listed hazardous waste was placed into any given land disposal unit or, in the case of an accidental spill, the date of the spill.

(b) Prior to land disposal, contaminated soil identified by paragraph (a) of this section as needing to comply with LDRs must be treated according to the applicable treatment standards specified in paragraph (c) of this section or according to the Universal Treatment Standards specified in 40 CFR 268.48 applicable to the contaminating listed hazardous waste and/or the applicable characteristic of hazardous waste if the soil is characteristic. The treatment standards specified in paragraph (c) of this section and the Universal Treat-

ment Standards may be modified through a treatment variance approved in accordance with 40 CFR 268.44.

(c) *Treatment standards for contaminated soils.* Prior to land disposal, contaminated soil identified by paragraph (a) of this section as needing to comply with LDRs must be treated according to all the standards specified in this paragraph or according to the Universal Treatment Standards specified in 40 CFR 268.48.

§ 268.50

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(1) *All soils.* Prior to land disposal, all constituents subject to treatment must be treated as follows:

(A) For non-metals except carbon disulfide, cyclohexanone, and methanol, treatment must achieve 90 percent reduction in total constituent concentrations, except as provided by paragraph (c)(1)(C) of this section.

(B) For metals and carbon disulfide, cyclohexanone, and methanol, treatment must achieve 90 percent reduction in constituent concentrations as measured in leachate from the treated media (tested according to the TCLP) or 90 percent reduction in total constituent concentrations (when a metal removal treatment technology is used), except as provided by paragraph (c)(1)(C) of this section.

(C) When treatment of any constituent subject to treatment to a 90 percent reduction standard would result in a concentration less than 10 times the Universal Treatment Standard for that constituent, treatment to achieve constituent concentrations less than 10 times the universal treatment standard is not required. Universal Treatment Standards are identified in 40 CFR 268.48 Table UTS.

(2) *Soils that exhibit the characteristic of ignitability, corrosivity or reactivity.* In addition to the treatment required by paragraph (c)(1) of this section, prior to land disposal, soils that exhibit the characteristic of ignitability, corrosivity, or reactivity must be treated to eliminate these characteristics.

(3) *Soils that contain nonanalyzable constituents.* In addition to the treatment requirements of paragraphs (c)(1) and (2) of this section, prior to land disposal, the following treatment is required for soils that contain nonanalyzable constituents:

(A) For soil that contains only analyzable and nonanalyzable organic constituents, treatment of the analyzable organic constituents to the levels specified in paragraphs (c)(1) and (2) of this section; or,

(B) For soil that contains only nonanalyzable constituents, treatment by the method(s) specified in § 268.42 for the waste contained in the soil.

(d) *Constituents subject to treatment.* When applying the soil treatment

standards in paragraph (c) of this section, constituents subject to treatment are any constituents listed in § 268.48 Table UTS—Universal Treatment Standards that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium, zinc, and that are present at concentrations greater than ten times the universal treatment standard. PCBs are not constituent subject to treatment in any given volume of soil which exhibits the toxicity characteristic solely because of the presence of metals.

(e) *Management of treatment residuals.* Treatment residuals from treating contaminated soil identified by paragraph (a) of this section as needing to comply with LDRs must be managed as follows:

(1) Soil residuals are subject to the treatment standards of this section;

(2) Non-soil residuals are subject to:

(A) For soils contaminated by listed hazardous waste, the RCRA Subtitle C standards applicable to the listed hazardous waste; and

(B) For soils that exhibit a characteristic of hazardous waste, if the non-soil residual also exhibits a characteristic of hazardous waste, the treatment standards applicable to the characteristic hazardous waste.

[63 FR 28751, May 26, 1998, as amended at 64 FR 25417, May 11, 1999; 64 FR 56472, Oct. 20, 1999; 65 FR 81381, Dec. 26, 2000; 71 FR 40279, July 14, 2006]

Subpart E—Prohibitions on Storage

§ 268.50 Prohibitions on storage of restricted wastes.

(a) Except as provided in this section, the storage of hazardous wastes restricted from land disposal under subpart C of this part of RCRA section 3004 is prohibited, unless the following conditions are met:

(1) A generator stores such wastes in tanks, containers, or containment buildings on-site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in §§ 262.16 and 262.17 and parts 264 and 265 of this chapter.